The Orchadian

Volume 19, Number 2 www.anos.org.au December 2017

Official Journal of the Australasian Native Orchid Society Inc.

Royal Botanic Gardens
Melbourne
28 DEC 2017
LIBRARY

Pyrorchis nigricans, from Arthur Pieman Conservation Area, northwest Tasmania.
Photo David Adams

The Orchadian

Official Journal of the Australasian Native Orchid Society Inc. Founded 1963
www.anos.org.au
Dedicated to the study and conservation of Australasian native orchids
Print Post Approved: 100000950, ISSN 04774-3342
Patron: David Cannon

December 2017 Volume 19 Number 2

CONTENTS

Editorial	Peter Adams	52
President's Report	Sheryl Lawson	53
Vale Ruth Rudkin 13/4/1917 – 10/9/2017	Irene Chalmers & Roslyn Capell	87
ANOS Awards		89
Groups Directory		95

Articles

Effects of Fire on *Pyrorchis nigricans* (R.Br.) D.L.Jones & M.A.Clem. in the Arthur Pieman Conservation Area, Tasmania	Peter Adams	54
The Elegant *Dipodium elegantulum* D.L.Jones and its Atherton Tableland Relatives – *Dipodium ensifolium* F.Muell. and *Dipodium variegatum* M.A.Clem and D.L.Jones	Noel J Grundon & Bruce Gray	59
Sarcanthinae Growth Characteristics and Culture	David Butler	62
Dendrobium mortii F. Muell. section *Rhizobium*	Gerry Walsh & Peter Adams	68
A Most Interesting *Sarcochilus falcatus* R.Br.	Gerry Walsh	73
2017 Kempsey Speciosum Spectacular	John Zietsch	75
Dendrobiums at the 2017 Townsville Orchid Spectacular	Roslyn Capell	79
Dendrobium speciosum 'Clair de Lune' FCC-ACC/ANOS 2017 (NSW)	Tony Blewitt	83
ANOS Warringah Group Spring Show 2017	Bill Dobson	84
Book Review: *Conservation Methods for Terrestrial Orchids* by N.D. Swarts & K.W. Dixon	Peter Adams	86

Copyright

Material in *The Orchadian* is subject to copyright and may not be reproduced without the express written permission of the author.

Submission of Articles

Items for consideration for publication should be submitted on disk or via e-mail to the editor, formatted for MS Word (DOC, DOCX, RTF). Images must be provided as separate files.

Please include your contact information for communication and publication.

Editorial Guidelines, including instructions for authors, are available on the ANOS website.

The Orchadian is printed by Immij Pty Ltd, Mount Waverley Victoria 3149

Subscription Rates (in $AU) 1/7/17 - 30/6/18

Australia	$55
New Zealand	$65
Asia/Pacific	$70
Rest of World	$80

Subs will be due from 1 July 2018

Advertising Costs per Four Issues, June - March

1/6 page	$120
1/4 page	$160
1/2 page	$300

Please contact the Treasurer for further info.
PO Box 1074 Cowes VIC 3922
or via www.anos.org.au

Council of ANOS Inc.

President	Sheryl Lawson
Vice-President	Peter Adams
Secretary	Rick Winch
Treasurer	David Brewster
Past President	Tony Clarke

ANOS Councillors

Barry Dudman
Callyn Farrell
Malcolm McGowan

National Registrar of Judges

Dave Groffen

Regional Registrars

Queensland	David James
New South Wales	Bill Dobson
Victoria	Peter Adams
South Australia	Les Nesbitt
Western Australia	Norm Stockton

ANOS Correspondence

ANOS Inc., PO Box 1074
Cowes VIC 3922

Editor of *The Orchadian*

Peter Adams, gallangowan@optusnet.com.au

Membership Officer

David James, membershipofficer@anos.org.au

Conservation Officer

Roslyn Capell

Webmasters

Callyn Farrell and Malcolm McGowan

ANOS Inc. Membership

Personal membership is achieved by a subscription to *The Orchadian.*

Members receive four issues a year and have full voting rights at the AGM.

Dendrobium Australian Ginger 'Denistone Fairy Dancer' HCC/ANOS 2017 (NSW)
Owner David Hemmings. Photo Bill Dobson

Editorial

A survey of the first six issues of *The Orchadian* Volume 1 in 1963 shows an impressive scope and content that reflected the initial wave of enthusiasm following the formation of ANOS. Three authors wrote about cultured epiphytes, and another the culture of terrestrials. There are reports of orchids from various regions e.g. northern NSW and Gloucester by Len Archer, extensions of the range of *Sarcochilus australis*, recognition that *Bulbophyllum torressae* belonged in *Dendrobium*, the description of *Dendrobium racemosum* as a separate species from *D. beckleri*, and explanations of the classification and nomenclature useful to writers by Eric Gordon.

There were no show reports, as shows were not yet developed, and President Murdoch made the comment that there were no judging guidelines, and readers might forward suggestions. The association of *D. kingianum* and *Thelymitra aristata* was recorded, and particular species such as *D. cancroides*, *Phreatia robusta*, *Coryba*s and *Pterostylis rufa* group were discussed.

Today there are plenty of ANOS shows, a lot of photographs taken, but few show reports submitted for publication by groups. I have not received a spontaneous one so far from spring shows. I encourage ANOS groups to recognise the value of recording their history and promoting their group by taking the responsibility to arrange for a report and photographs to be prepared for their shows and special events.

I also encourage articles on orchids in their natural habitat and in collections, to share information that will be less ephemeral than a brief posting online. When searching online for articles and papers on particular genera or species, there is often little useful information. Articles for *The Orchadian* on observations in the wild, which were a feature of early volumes, have declined in recent years.

In this issue I report on *Pyrorchis nigricans* (syn. *Lyperanthus nigricans*), review what is known about it and its fire response, but struggled to find a few useful articles, particularly about fire dependence. Noel Grundon and Bruce Gray report, in the syle of early *Orchadian* writers, observations of three *Dipodium* species from North Queensland. Gerry Walsh has continued the tradition of going bush and found an unusual colour form of *Sarcochilus falcatus*. He has also co-authored an article on *D. mortii*, a rather shy rainforest species that could be grown and exhibited more frequently.

David Butler's articles and photos always show his vast experience and knowledge of breeding and culture - straight to the point.

I encourage more ANOS members to write for *The Orchadian*. Readers would be interested to hear from overseas members about their experiences with Australian orchids. There are keen observers and citizen scientists in most states, monitoring and recording orchid populations, well known, endangered or recently discovered, and *The Orchadian* is a prime venue for publication of such material. New descriptions are welcome and all will be peer reviewed to ensure they meet the requirements for valid publication. Presently we have many contributors who are not ANOS members, which is very encouraging, and I know that there are many ANOS members who are capable of writing article of interest.

In this issue is a report of recent awards, judged at the Kempsey Speciosum Spectacular and elsewhere, with comments where they have been supplied.

The early writers of *The Orchadian* were really outstanding - Murdoch, Corrigan, Clemesha, Archer, Dockrill and others. Dockrill's articles in *The Orchadian* and in *Australian Plants* (published by the Society for Growing Australian Plants) were later expanded to form his classic book *Australian Indigenous Orchids* in 1969 and 1992. It is time for the current generation of orchid growers to add their names to the history of more than 50 years of discovery and celebration of Australian orchids.

Correction to last issue: The top photograph on the back page labelled *D. speciosum* 'Mark' is *D. speciosum* 'Snowy'.

Peter Adams

President's Report

I am pleased to announce that the composition of ANOS Council remains unchanged after the AGM, apart from Wal Heath who has stood down from council. Continuity of councillors is important as it enables us to proceed with longer term planning, and I thank them all on your behalf for their willingness to continue.

There have been increasing opportunities for members in the eastern states to have their plants judged and awarded thanks to the expanded size of the judging panel in recent years, and this is reflected in the larger number of awards being granted to high quality plants. Many of the 2017 awards are showcased in this edition of the journal. Our congratulations are extended to the growers. Expanding the judging panel to include more regions is under active consideration to provide a wider representation of the best Australasian orchids in cultivation. I would remind everyone who has won a show, or a section, or received an award by any recognised judging panel, that they should check their eligibility to enter their plant into the Ira Butler Awards for 2017 (see irabutlertrophy.org). Applications should be sent in as soon as possible.

I have received numerous reports of the difficulties growers have experienced in coping with various extremes of weather this season, unseasonally high temperatures, torrential rainfall, and flooding. For some there has been significant plant damage and loss, and for others a reduction in flowering, both in quantity and quality. These effects vary from region to region, and the particular local microclimate also plays a significant role. The very light flowering this year means my collection has an early growth start for the next flowering season. Growing orchids is best left to optimists.

Planning for the 2019 National ANOS Show and Conference is proceeding, and we are hopeful we will be able announce the details very shortly. I hope that many members and anyone interested in Australasian orchids will join us for what is always an informative and friendly event.

I have just returned from the triennial 22nd World Orchid Conference (WOC) in Ecuador. There was a small but enthusiastic contingent from Australia, and we were well represented in the speaker programme. Dr. Peter Adams presented a paper on Biogeography of Australasian Dendrobiums and Charlie McMonagle presented a paper jointly authored with Peter Adams on Current Challenges in Orchid Judging. Ian Chalmers spoke on *Latouria* Dendrobiums, and my paper was titled Breeding Cool Growing Australasian Dendrobiums. Grand Champion of the show was a lovely specimen of a pale blue flowered *Dendrobium parvulum*, an Asian species occurring within the defined ANOS territory, which more than held its own against the huge number of South American species on display.

At the conference it is traditional to announce the host six years in advance. Taiwan is the host for 2020, and Perth has been provisionally awarded the WOC for 2023. Council has already indicated to the organising committee our willingness to be involved, and to put up a stand for the show. I ask all members to talk at their group level about this event and encourage everyone to attend where possible. We will keep you up to date with progress and will liaise closely with ANOS groups about how we can showcase Australasian plants. I understand it is envisaged that the conference will be held in spring to coincide with the flowering of Western Australian terrestrials, and this may require some groups to consider revising their spring show dates once the dates of the WOC in Perth are known.

The Sixth World Orchid Conference was held in Sydney in September 1969 and was a highly successful conference for its time. Comments made to me indicate there is a lot of interest overseas in Australasian orchids. It is a wonderful opportunity to promote Australasian orchids to the world, and potentially an exciting time for orchid growers.

Thanks to the person who pointed out that it was ANOS Mid-North Coast, not ANOS Central Coast that hosted the ANOS Conference and Show in 2016. It was my geographical error in the AGM Report and the minutes will be corrected. We acknowledge the hard work that ANOS Mid-North Coast members put in to run the Kempsey Speciosum Spectacular every year.

Sheryl Lawson

Effects of Fire on *Pyrorchis nigricans* (R.Br.) D.L.Jones & M.A.Clem. in the Arthur Pieman Conservation Area, Tasmania

Text and Photographs Peter B. Adams

Summary

Pyrorchis nigricans is widespread in the southeast of Australia and also occurs in the southwest corner of Western Australia. After hot summer fires there is a prolific initial flowering followed by only occasional flowering plants in subsequent seasons. The severe bushfires in January 2016 in western Tasmania resulted in mass flowering at many burnt sites in October 2016, followed by no flowering in 2017. In October 2017 at an unburnt site with no known fires for more than ten years, seven plants flowered from 35 which produced leaves. Flowering has also been observed in other parts of the conservation area including roadsides where there has been no fire for many years.

Taxonomy

Pyrorchis D.L. Jones & M.A. Clem. and *Lyperanthus* R.Br. are classified in the Subtribe Megastylidinae, of tribe Diuridae, which includes the major genera *Diuris*, *Caladenia*, *Acianthus*, *Thelymitra*, *Cryptostylis* and *Prasophyllum*.

The genus *Lyperanthus* was established by Robert Brown in 1810 based on a type specimen of *Lyperanthus suaveolens*. *Lyperanthus nigricans* R.Br. was described by Brown from a Port Jackson collection from 1803. Hopper and Brown (in Hoffman & Brown 1993) informally suggested *Lyperanthus* species be transferred to another fire dependent genus *Burnettia* Lindl. Jones and Clements (1994) transferred the two Australian species *L. nigricans* and *L. forrestii* to a new genus *Pyrorchis* (fire orchids) on the basis of differences in the leaf position on the ground, leaf shape and anatomy (Pridgeon 1994) and mass flowering after fire. In Australia *Lyperanthus* is now represented by *L. serratus* in WA, and *L. suaveolens* which is widespread and common in the eastern states of Queensland, New South Wales, Australian Capital Territory, Victoria and Tasmania, where it is found in coastal lowlands from northeast to southeast, and also at Hunter Island in the northwest. It is said not to be stimulated to flower by fire (Jones & Clements 1994). A phylogenetic tree based on DNA indicated that *Pyrorchis* is a sister group to *Lyperanthus* in Megastylidinae (Jones et al 2002).

Identification

Pyrorchis nigricans is a geophytic perennial herb with ovoid, solitary tubers and daughter tubers produced on the end of long root-like stolons. It is widespread in New South Wales, Victoria, South Australia and Tasmania, and also occurs in Western Australia and the Australian Capital Territory. It is common in a variety of habitats, often in sandy soils from forest to low heathland, and forms extensive colonies or scattered groups. It can be readily identified out of flower by a distinctive solitary, round to ovate or heart-shaped leaf which is fleshy, bright green, ground-hugging and often with prominent scattered black markings. *Pyrorchis forrestii* from Western Australia has narrower leaves.

The flowers of both species are also distinctive, with a hooded appearance, long covering dorsal sepal, and red-brown markings. *Pyrorchis nigricans* has a flower stem up to 30 cm tall with prominent leafy stem bracts and 2–8 nodding flowers, with a white base colour and red-brown stripes and markings. The curved labellum is white with crimson lines, a few sessile calli, and prominent white hairs creating a fringe. It flowers in August to November, and after flowering the flower stem becomes jet black, hence the specific name '*nigricans*'.

Flowering is often described as absent or rare except following fire, or disturbance such as mowing or grazing. Pollination is by bees (Pridgeon et al 2014) with production of a sweet nectar at the base of the column. There are conflicting reports of a sickly sweet or fox-like odour (Hoffman & Brown 1992) or no odour (Bates & Weber 1990).

Arthur Pieman Conservation Area (APCA) Bushfire January 2016

Burnt areas

On the northwest coast of Tasmania *P. nigricans* is commonly found in coastal heathland in scattered groups or large colonies containing up to several thousand plants (Figs. 1-5). Extremely severe fires burnt large areas of coastal heathland vegetation

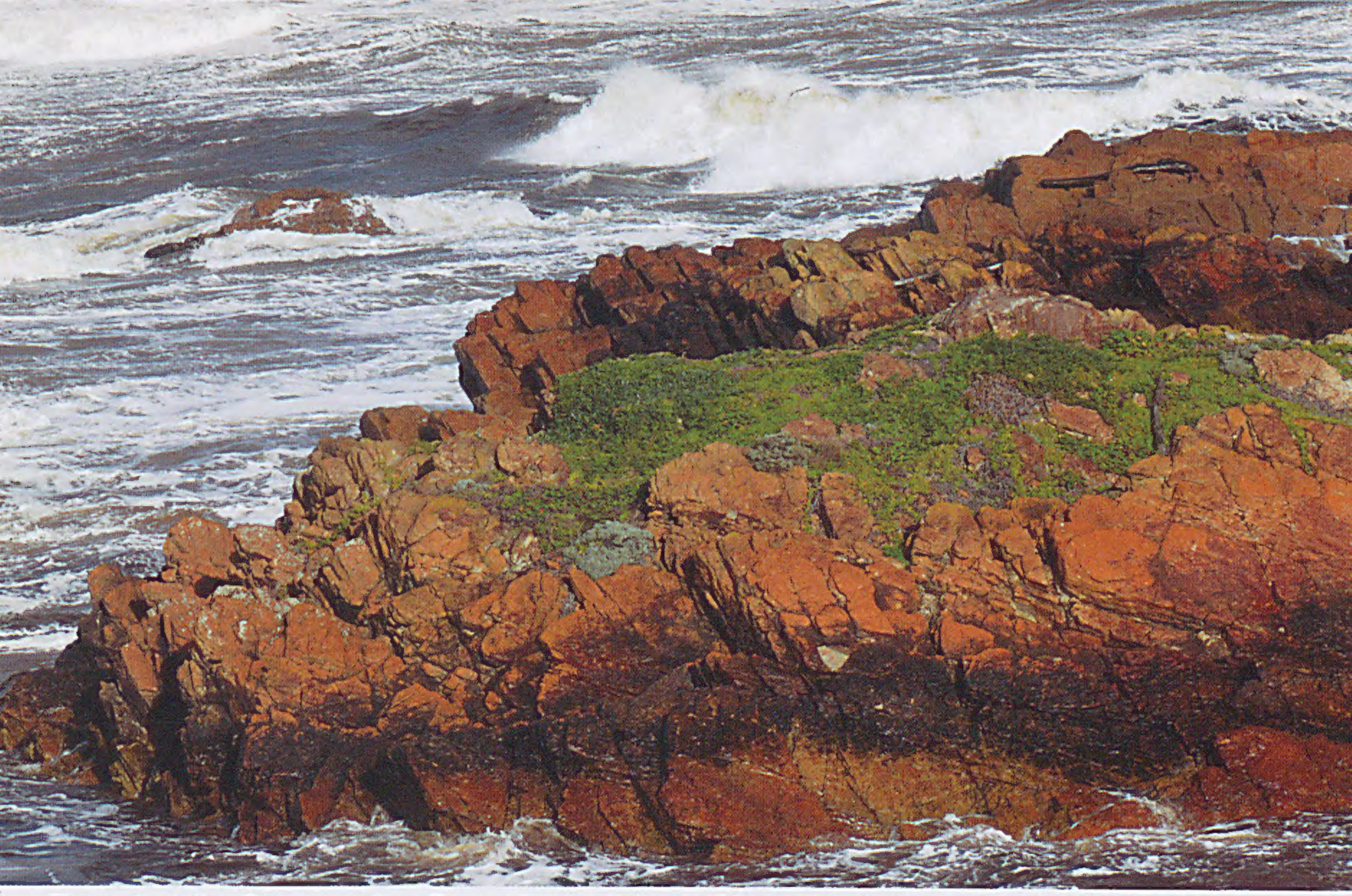


Figure 1: Arthur River coastline, Tasmania, near habitat of *Pyrorchis nigricans* on coastal heathland.

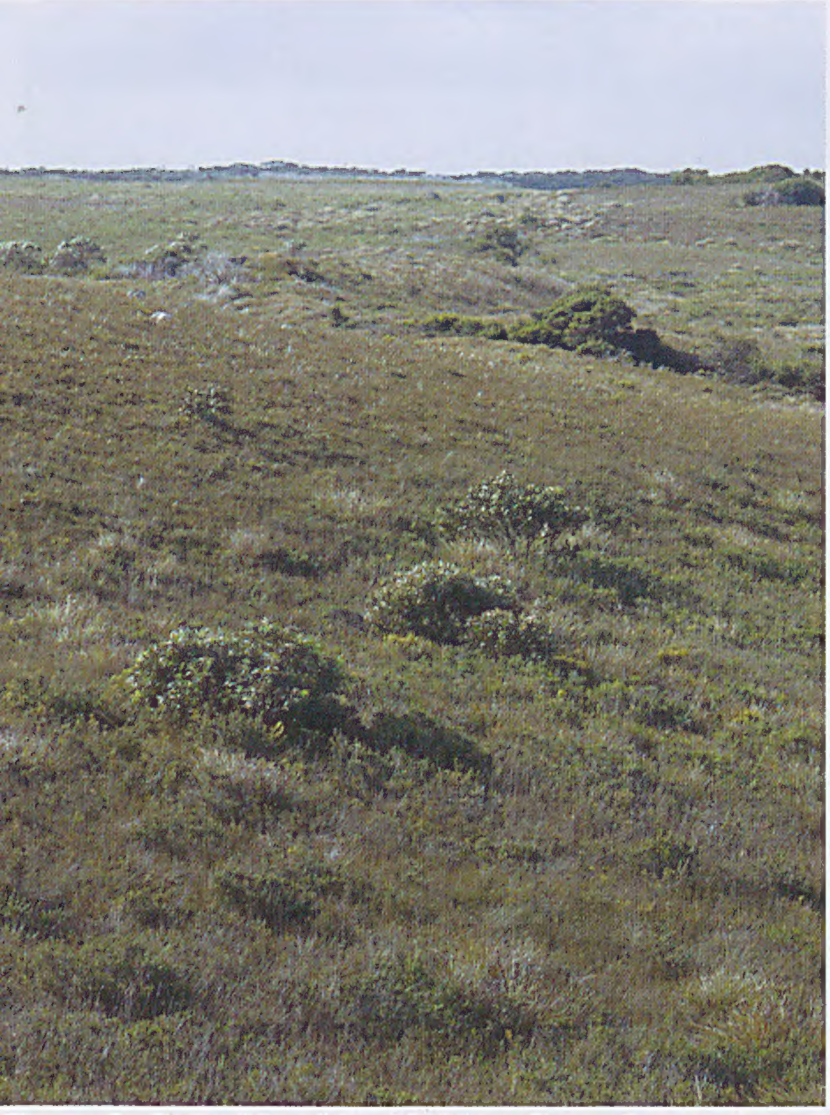


Figure 2: Coastal heathland habitat, *Pyrorchis nigricans*, Arthur Pieman Conservation Area, Tasmania.

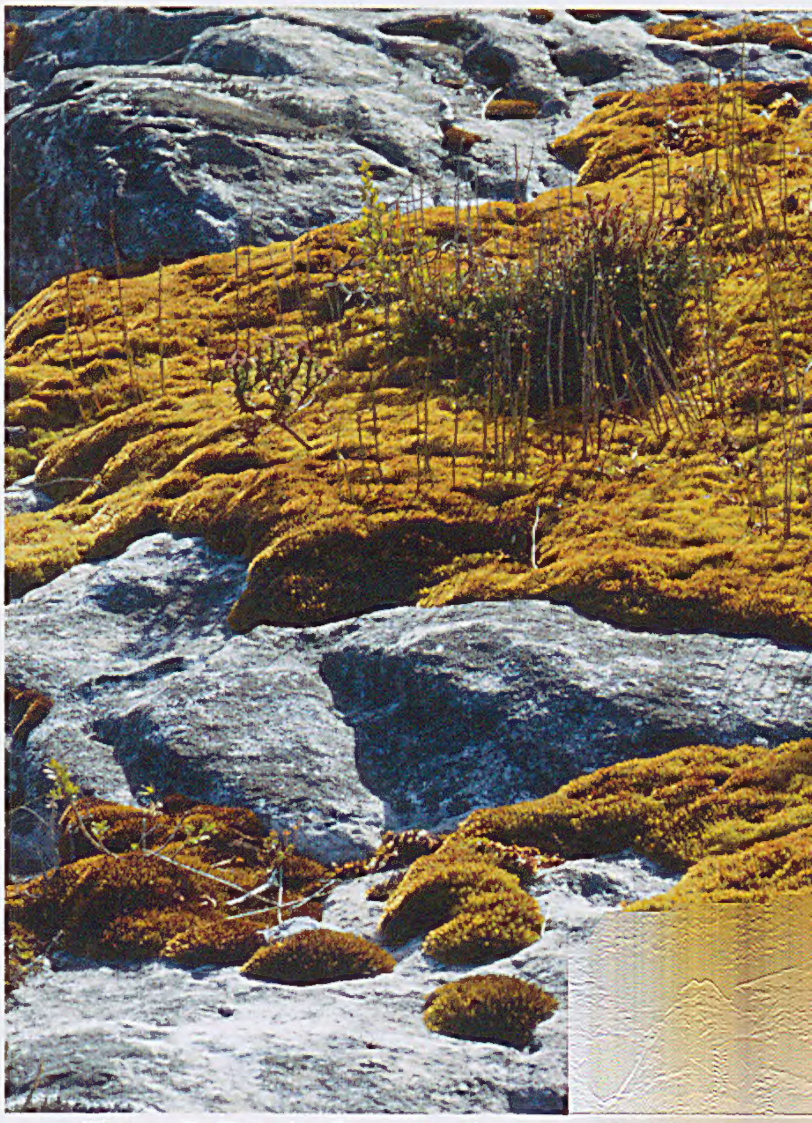


Figure 3: Detail of moss and quartzite habitat for *Pyrorchis nigricans*.

in the APCA in January 2016. In the burnt areas south of the Arthur River, thousands of solitary *P. nigricans* leaves developed over winter (Figs. 6,7) followed by a mass flowering in late October 2016. This heathland is dominated by low, dense sclerophyll shrubs including *Melaleuca squarrosa*, *Leptospermum scoparium*, *Banksia marginata*, *Allocasuarina* and *Epacris* species. *Lomandra*, *Lepidosperma*, *Juncus* and *Gahnia grandis* are found in wetter sites. The 2016 fire removed all vegetation in large areas and *P. nigricans* plants were exposed to full sun and winds to October 2017.

During a cold winter in 2017, hundreds to thousands of leaves developed at the same burnt sites (more than 10 plants per square cm in some areas) but no flowering was observed in the following October to November. In October the leaves were much smaller (2.5–3 cm wide) than at the unburnt sites, and a lighter shade of green. At these sites on flat land or exposed hillsides, several species each of *Caladenia*, *Thelymitra* and *Calochilus* flowered densely in October to November in 2016 and 2017.

Unburnt areas

In areas of coastal heathland with low growing *Eucalyptus nitida* (Smithton peppermint), north of the Arthur River, there has been no firing for over a decade (pers. comm. APCA staff). In June and October 2017, scattered groups of *P. nigricans* were observed on exposed quartzite outcrops in the area (Figs 6,7), with an open heathland dominated by *E. nitida* about 2 m tall providing cover for emerging *Pterostylis*, *Thelymitra* and *Pyrorchis*. The soil was skeletal, with much exposed rock covered partially with lichens and mosses. Below the outcrops, *P. nigricans* was not observed in a dense cover of *Gymnoschoenus sphaerocephalus* (button grass) and other tufted plants. On the outcrops there were a total of around 35 plants, seven in flower, with 2–5 flowers per stem. These had larger bright green leaves, which were towards the upper limit of width (5 cm) for the species. These had developed from small spherical outgrowths on the leaf hilum seen in June. There was no sign of charring, charcoal, burnt ground or fire regeneration at these sites, supporting the absence of fire for many years. In the 2015 and 2016 flowering seasons, no flowering plants of *P. nigricans* were observed on the outcrops (C. Broadfield, pers.comm.). In other sites unburnt for many years in the APCA, such as along roadsides, flowering has also been observed.

Cultivation

Pyrorchis nigricans is difficult to cultivate (Jones 2006), and on the few occasions when tubers are available, cultivation has produced poor flowering results (Pridgeon et al 2014 p. 170) A basic terrestrial mix is used, with extra sand to assist drainage. Experiments to trigger flowering may result in improved results. The weekly application of banana skins near the plants, from the dormant period to maturity, can result in a 50% flowering rate (R. Thomson, pers. comm.).

Discussion

Fire has multiple effects that can contribute to emergence of plants and initiation of flowering in certain terrestrial orchids. These include heating of soil and rock, alteration of soil structure, nutrient levels and soil biota, and exposure of soil and underground structures to an array of chemicals. There is little available published definitive information on the factors responsible for triggering flowering of individual species including *P. nigricans*, except for often observed mass flowering effect after hot summer fires. Mowing and grazing, disturbance of *P. nigricans*, weather, temperature, grazing, costs in reproductive effort and habitat deterioration are additional factors that may control flowering. Duncan (2012) reported a mass flowering of *P. nigricans* in September-October of the first spring after the Black Saturday fires of 2010 in Bunyip NP and Wilsons Promontory NP in Victoria. In the next spring, less than 5% of the plants flowered. There have been proposals that ethylene released in the passage of a fire front stimulates flowering (Brown et al. 2008, Dixon and Tremblay 2009) but I am not aware of any published evidence to substantiate this or any other fire-related factors.

There is a spectrum of responses of terrestrial orchids to fire, related to differences between species, soil types and depths, vegetation type, and the intensity and duration of the burn. Some orchids such as *Pyrorchis* and *Burnettia* are said to be fire-dependent, others fire neutral, and some stimulated to emergence and flowering by fire. This is complicated by the effect of significant

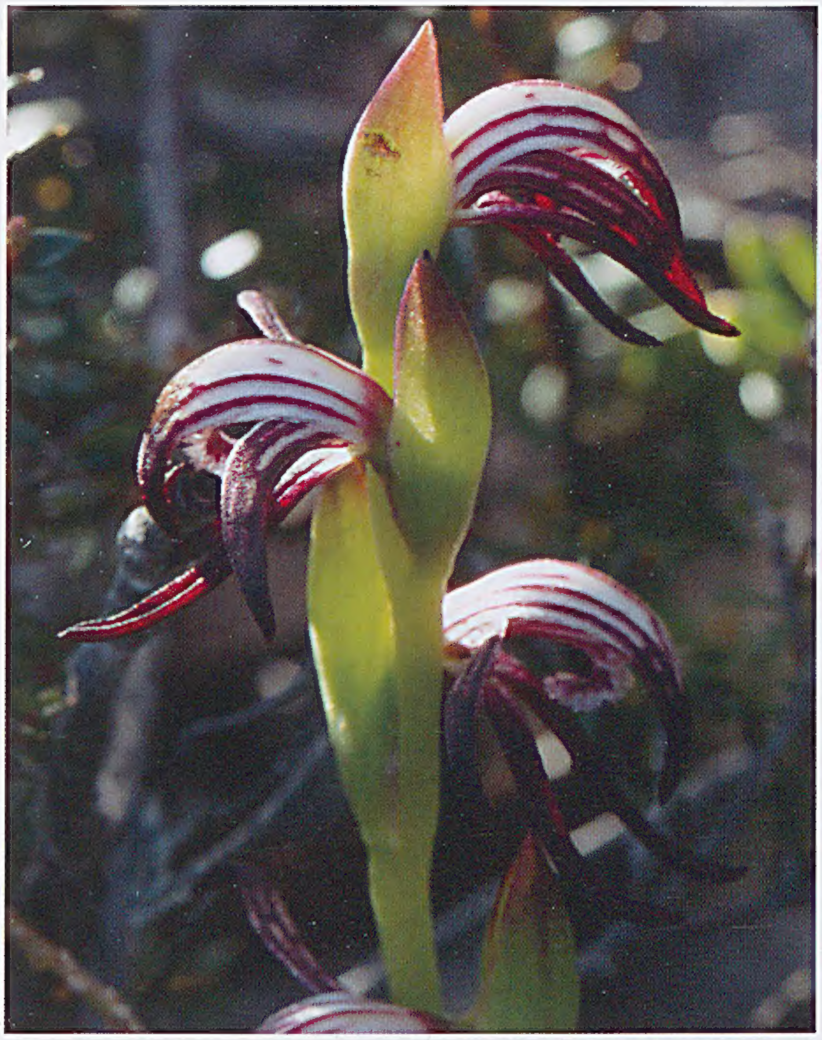


Figure 4. *Pyrorchis nigricans* with heath in background. Photo David Adams

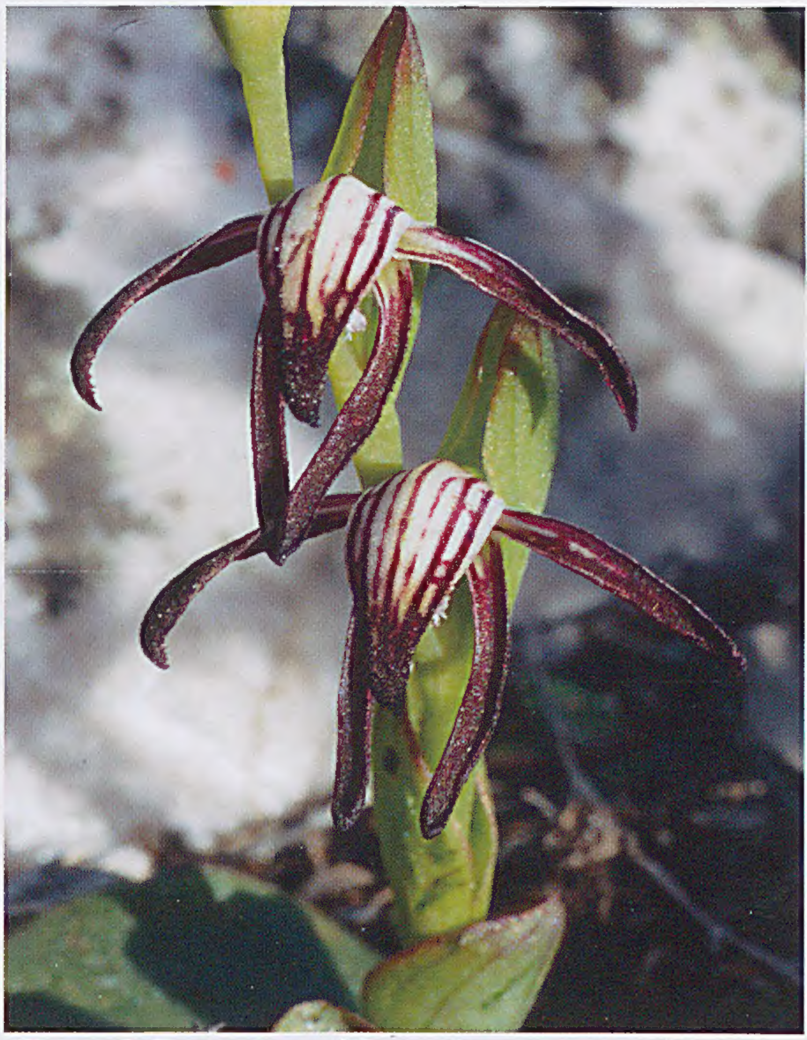


Figure 5. Front view of *Pyrorchis nigricans* with leafy bracts, Oct. 2017. Photo David Adams

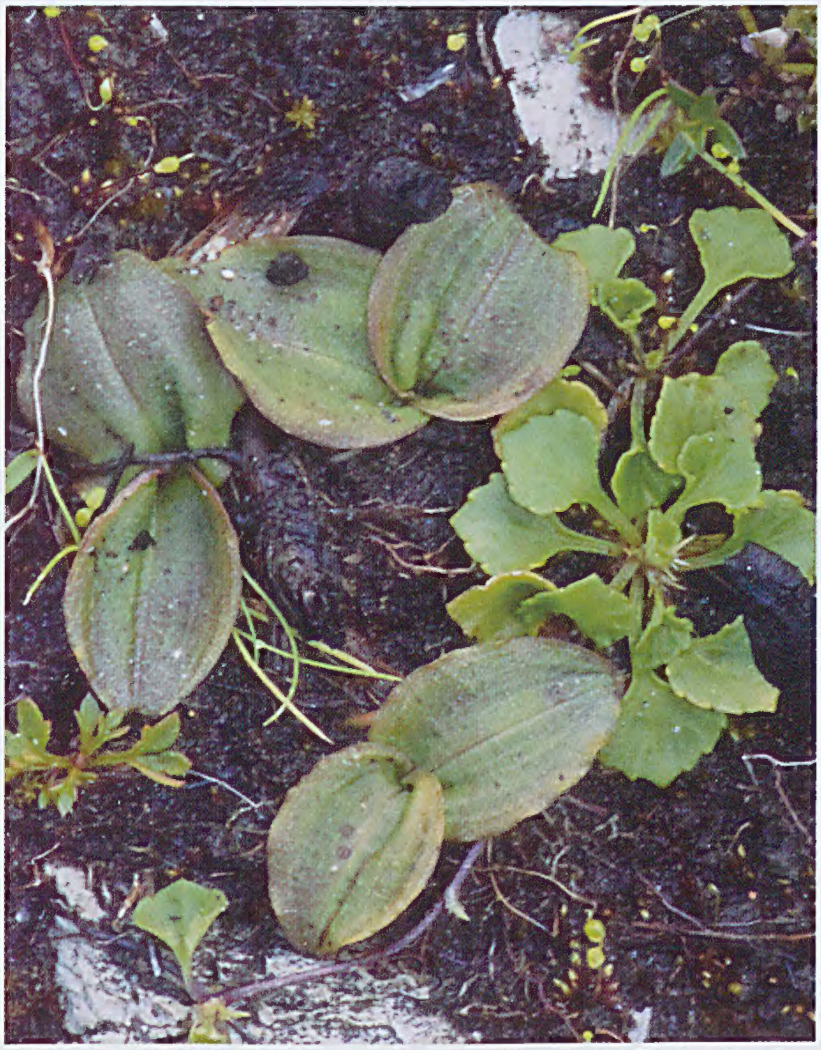


Figure 6. Group of *Pyrorchis nigricans*, no flower buds June 2017.

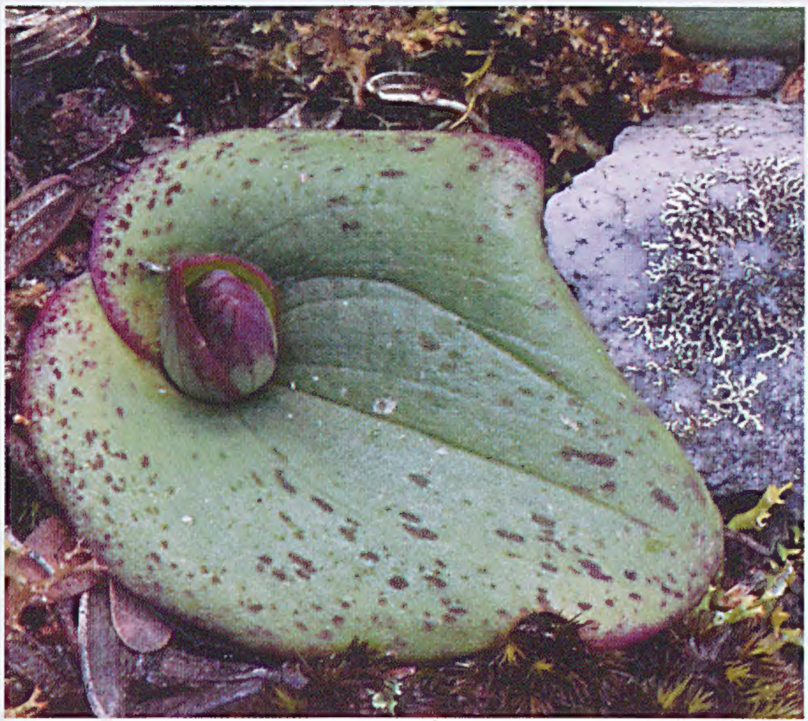


Figure 7. *Pyrorchis nigricans* leaf with dark markings and developing flower stem, June 2017.

fire intensity in reducing the understory, often to bare ground, so light and temperature will promote terrestrial flowering, and the plants are also much more visible.

Fire may be stimulating or inhibiting to underground tubers, promoting growth and flowering via nutrient supply and chemicals in ash and smoke. It may be destructive by heating soil, especially if the soil is shallow when underground structures can be severely damaged. At APCA both effects were observed, with severely burnt areas around shrub bases denuded and eroded, becoming islands with no orchids.

The mass flowering at many burnt sites in the first year after the 2016 fires is a typical and expected fire response, but the total absence of flowering in 2017 is unexpected. There is usually a declining percentage of plants and flowers in the second and third seasons after a burn. Depletion of nutrient reserves after a heavy flowering, soil nutrition or climatic factors of temperature and moisture in a cold winter may have contributed to the non-flowering.

In the non-burnt area the 20% flowering rate in 2017 after two years of non-flowering is higher than expected, but there are anecdotal reports of significant flowering in areas other without fire for decades e.g. Stirling Range in WA.

The quartzite outcrops near Arthur River are elevated and exposed, and *P. nigricans* is found in shallow soil over rock masses. There is much heating of the rock and drying of the soil in warmer months, which may be a trigger to flowering. Further observations will be made in the following years, as the flowering patterns appear more complex than a simple fire response.

Acknowledgements

Craig Broadfield, Peter Tonelli and David Adams assisted with field work. Staff of APCA provided field support and information.

References

Brown R 1810 *Prodromus Florae Novae Hollandiae et Insulae Van Diemen*. Richard Taylor and Son, London.

Bates RJ and Weber JZ 1990 *Orchids of South Australia.* Flora and Fauna of South Australia Committee.

Brown AP, Dundas P, Dixon KW and Hopper SD 2008 *Orchids of Western Australia*. University of Western Australia press, Nedlands.

Dixon KW and Tremblay RL 2009 Biology and natural history of *Caladenia. Aust. J. Bot*. 57: 247-258.

Duncan M 2012 *Responses of orchids to bushfire. Black Saturday Victoria 2009- natural values fire recovery program.* Victorian Government Department of Sustainability and Environment. p 1-28.

Hoffman N and Brown A 1992 *Orchids of south-west Australia.* University of Western Australia Press.

Jones DL and Clements MA 1994 *Pyrorchis*: a new genus of Orchidaceae from Australia. *Phytologia* 77(6): 447-451.

Jones DL, Clements MA, Sharma IK, Mackenzie AM and Molloy BPJ 2002 Nomenclatural notes arising from studies into the Tribe Diurideae (Orchidaceae). *The Orchadian* 13(10).. 437-468.

Pridgeon AM 1994 Systematic leaf anatomy of Caladeniinae (Orchidaceae). *Bot. J. Linn. Soc.* 114(1): 31-48. DOI: 10.1111/j.1095-8339.1994.tb01922.x.

Pridgeon AM, Cribb PJ, Chase MW and Rasmussen F. (eds.) *Genera Orchidacearum Volume 2 Orchidoideae Part 1.* Oxford University Press.

ORCHIDACEOUS BOOKS

Specialist Supplier of fine orchid literature

Large selection of new and
pre-owned titles available.

Browse our website at your leisure
www.orchidaceousbooks.com.au
Or send for our catalogue.

Grahame and Margaret Muller
PO Box 4192, Tinana QLD 4850
Phone 07 4122 1251 Fax 07 4122 4539

Email: books@orchidaceousbooks.com.au

The Elegant *Dipodium elegantulum* D.L.Jones and its Atherton Tableland Relatives – *Dipodium ensifolium* F.Muell. and *Dipodium variegatum* M.A.Clem and D.L.Jones

Noel J Grundon and Bruce Gray
noel.grundon@bigpond.com; bgray@aanet.com.au

When driving back to Atherton from Mareeba, a flash of purple in the grass on the roadside caught the eye of one of the authors (NG). What was it? And there is another – a head of purple-mauve flowers just above the grass. Ahh…Ha! That's what it is – a *Dipodium.* Such was a meeting with the elegant *Dipodium* – *Dipodium elegantulum.*

Kew's World Checklist of Selected Plant Families (WCSP 2017) lists 27 species and two varieties in the genus *Dipodium* R.Br. Ten species occur only in Australia: *D. atropurpureum, D. campanulatum, D. ensifolium, D. elegantulum, D. hamiltonianum, D. pardalinum, D. pulchellum, D. roseum, D. stenocheilum,* and *D. variegatum,* while a further two species occur in Australia and other countries: *D. squamatum* occurs also in Vanuatu, and *D. scandens* occurs also in New Guinea, Indonesia,and the Philippines.

Of the 12 species that occur in Australia, Dockrill (1992) lists only six as having distributions extending into Far North Queensland, of which only three occur on the Atherton Tablelands: *D. elegantulum, D. ensifolium,* and *D. variegatum.*

Dipodium elegantulum

Jones (1991) describes how, in November 1987, the late Len Lawler collected the type of *D. elegantulum* about 6 km south of Mareeba beside the Kennedy Highway, approximately where its purple-mauve flowers first caught the eye of the senior author (NG). Jones reported the distribution of this species as from the Mount Windsor Tableland, north-west of Cairns, to as far south and inland as Charters Towers and Torrens Creek on the Flinders Highway, south-west of Townsville. We have seen it growing in grassy, open eucalypt woodlands on shallow loams to gravelly sandy loams and gravelly sands from south of Mareeba to west of Mt. Garnet, Herberton and Georgetown.

Like many species of *Dipodium*, *D. elegantulum* is a saprophytic, terrestrial herb without leaves. The upright flower stems can be up to 150 cm tall, but more usually are 30–90 cm tall, creamy white to greenish white in colour. The flower stems carry up to 60 crowded, semi-pendent to pendent flowers that are 20–25 mm across (Fig. 1). Flower colour varies from pale to dark pink to mauve, with nil to a few small, pink to mauve spots on the outside of the sepals and petals, and nil to a few larger spots on the inside especially near the tips of the petals (Fig. 2). The distinctive dark pink, red or deep purple spotting seen on many of the Australian species is absent on *Dipodium elegantulum.*

Flowers open widely and the segments are narrow and slightly recurved. The older, first-opening flowers tend to be slightly larger than the younger, last-opening flowers. The flowering season is from August to January.

This desirable orchid is an obligate saprophyte that survives by a close symbiotic relationship with a fungus. It does not survive in captivity and should never be collected.

Dipodium elegantulum can be distinguished from the other two *Dipodium* species occurring on the Atherton Tablelands by the lack of heavy blotching on its flowers, and its leafless flowering stems.

Dipodium ensifolium

This distinctive, terrestrial herb is easily distinguished from other North Queensland *Dipodium* by its leafy growths. It is endemic to Far North Queensland, from near Cooktown to as far south as Ingham. This species has been reported to grow on sandy friable soils to clayey soils on the coastal lowlands in open forests or grasslands, and on loams and friable clays above 800 m in the north of its range (Jones 1988, Dockrill 1992). On the Atherton Tablelands, we have seen it growing in grassy open eucalypt woodland near the top of the Herberton Range, on shallow gravelly sandy loams, and often in the table-drain of the road where a somewhat deeper sandy soil has collected.

Plants generally consist of one to a few leafy stems up to 1 m tall (Fig. 3). They become lanky and sprawling with age if natural events such as fire or grazing do not destroy them, forcing the plant to regrow from the thick and fleshy roots and stem

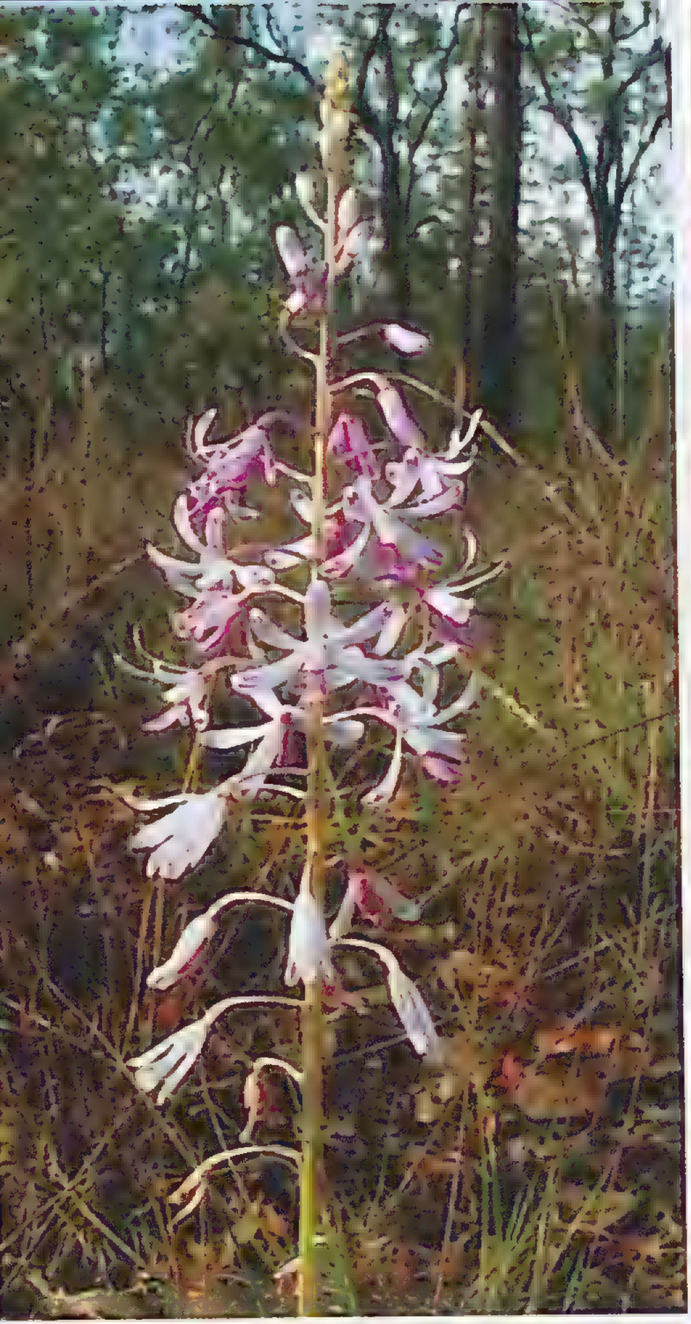


Figure 1. *Dipodium elegantulum* in open forest habitat at Mt. Garnet. Photo Mark Nowochatko

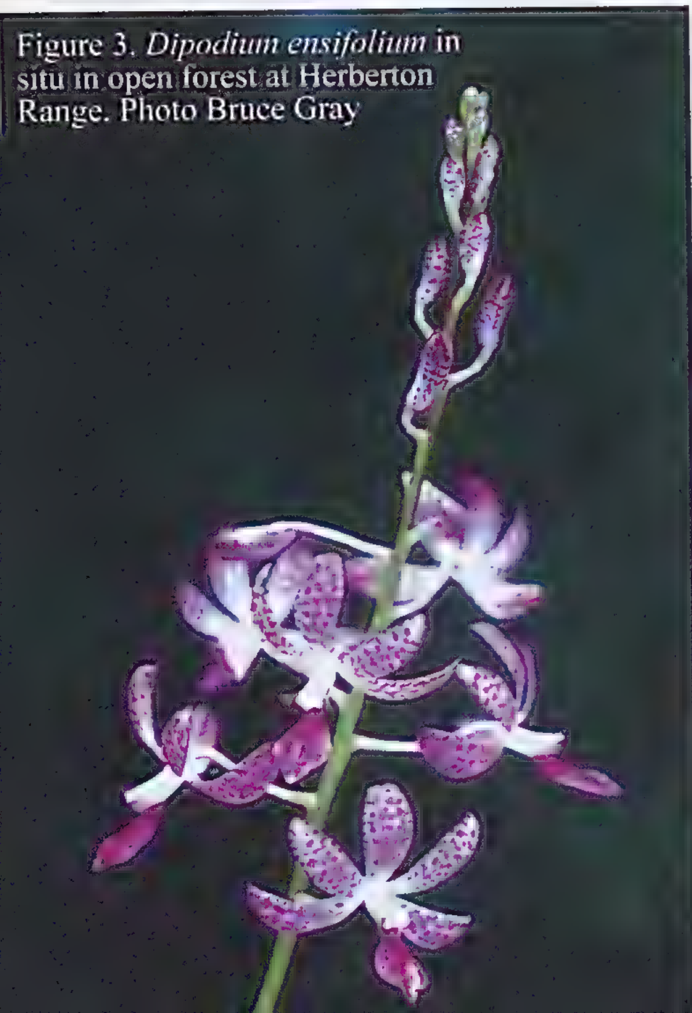


Figure 3. *Dipodium ensifolium* in situ in open forest at Herberton Range. Photo Bruce Gray

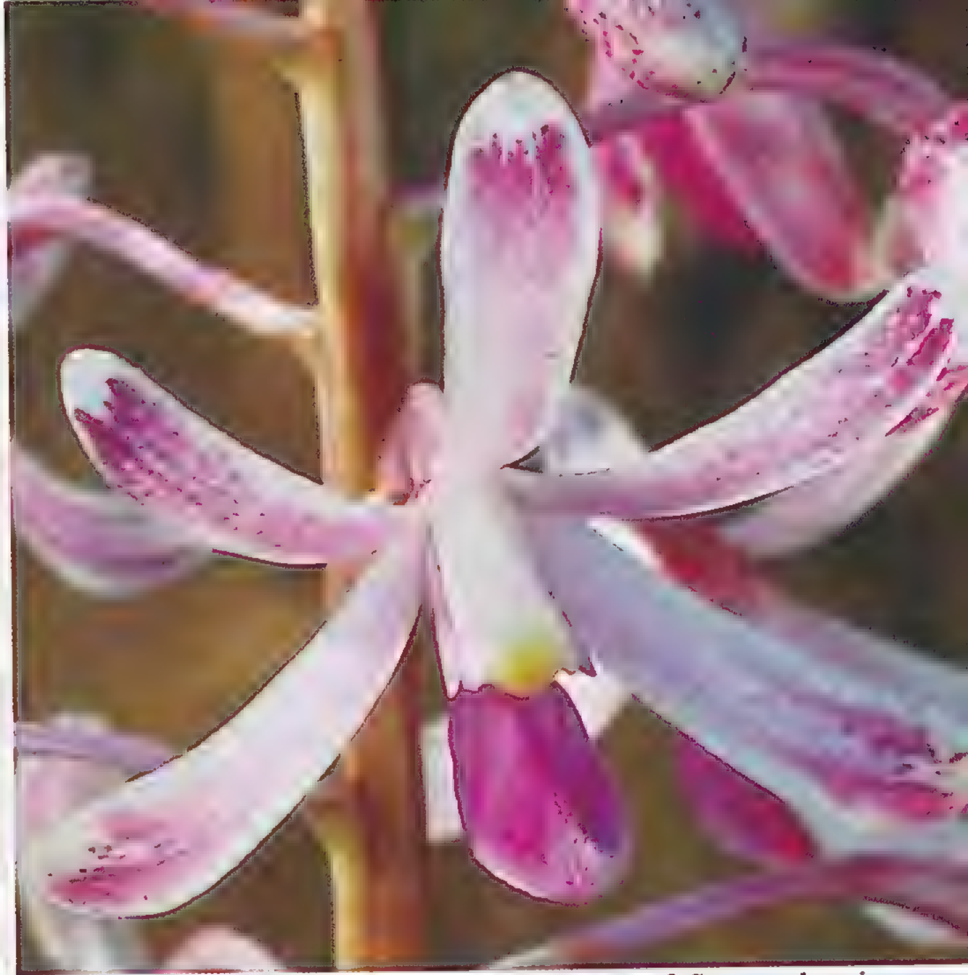


Figure 2. *Dipodium elegantulum* close-up of flower showing light blotching on petals and sepals. Photo Mark Nowochatko

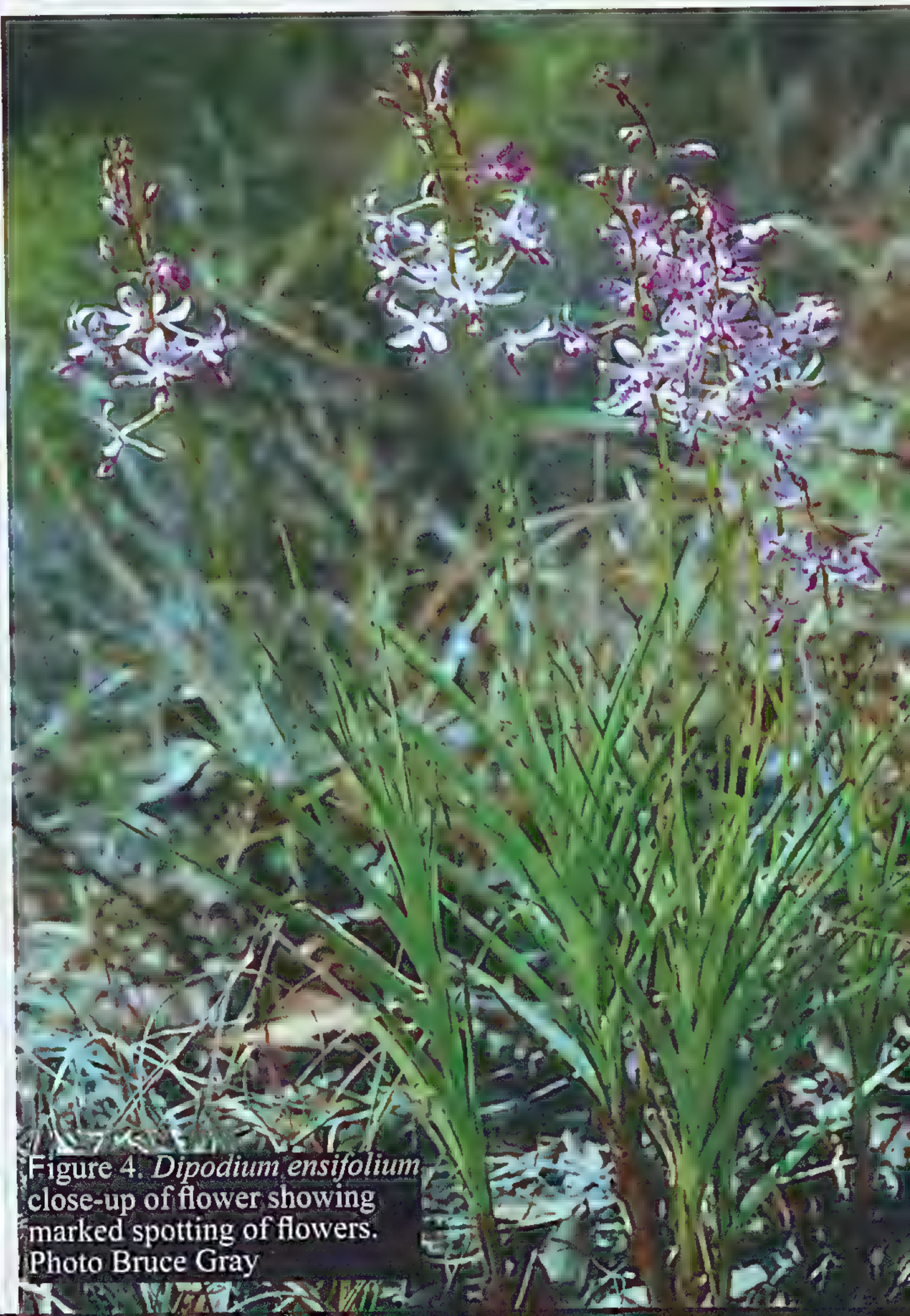


Figure 4. *Dipodium ensifolium* close-up of flower showing marked spotting of flowers. Photo Bruce Gray

bases usually buried deeply in the ground. Leaves are up to 20 cm long, pale to dark green in colour, deeply channelled, curved and strongly ribbed. They grow in two rows and overlap at the base, producing an appearance resembling that of a semi-terete leafed *Vanda*.

Up to 4, but more usually 1 or 2, erect racemes up to 55 cm long develop from the lower leaf axils and carry 2 to 20 flowers that are 30–40 mm in diameter. Flowers open widely but the sepals and petals that are moderate in width do not reflex greatly. The base colour of the flower is pink to mauve, with many prominent deep mauve to red spots or blotches on the inside of the segments (Fig. 4). The flowering season extends from October to January.

Dipodium ensifolium can be distinguished from the other North Queensland *Dipodium*, by its leafy stems. Because *D.* ensifolium is not an obligate saprophyte, Jones (1988) reports that it can be easily grown in a pot of well-drained soil-based mixture.

Dipodium variegatum

With the common name of the slender or blotched hyacinth orchid (Jones 1988), *D. variegatum* is a leafless, terrestrial saprophyte and should never be collected as it does not survive in captivity. This species is endemic to eastern Australia from eastern Victoria (e.g. Mallacoota) to Far North Queensland (e.g. Windsor Tableland and Mt. Spurgeon). In the southern part of its range, it occurs mainly in coastal sclerophyll scrubs, open woodlands or heaths from coastal plains up to moderate altitudes (Dockrill 1992). On the Atherton Tablelands, it is found in open grassy woodlands growing on friable loam soils.

The leafless flower stems are produced from a short, thick underground rhizome with an extensive thick root system. Flower stems are 30 mm to 70 cm tall, slender, greenish to purple in colour, and carry from a few to 50 flowers. The flowers are about 20–35 mm across, open widely, and the moderately sized segments become somewhat reflexed. Flower colour is cream to pink with many, heavy maroon blotches (Fig. 5). Flowering is usually from October to January. In good seasons, a new flowering stem may be produced from the underground rhizome as the previous one dies, and the season may extend to as late as March.

Dipodium variegatum can be distinguished from the other two Atherton Tablelands *Dipodium* species by its leafless flowering stems, and its smaller flowers that are heavily blotched with deep maroon spotting.

References

Dockrill AW 1992. *Australian Indigenous Orchids, Volume 2.* Surrey Beatty & Sons, Chipping Norton, NSW.

Jones DL 1988. *Native Orchids of Australia.* Reed Books, Frenchs Forest, NSW, Australia.

Jones DL 1991. *New taxa of Australian Orchidaceae. Australian Orchid Research Vol. 2.* Australian Orchid Foundation, Essendon, Victoria.

WCSP, 2017. World Checklist of Selected Plant Families. Facilitated by the Royal Botanic Gardens, Kew. http://apps.kew.org/wcsp/ Retrieved 2017-03-01.

The authors live in North Queensland and have extensive experience with orchids there.

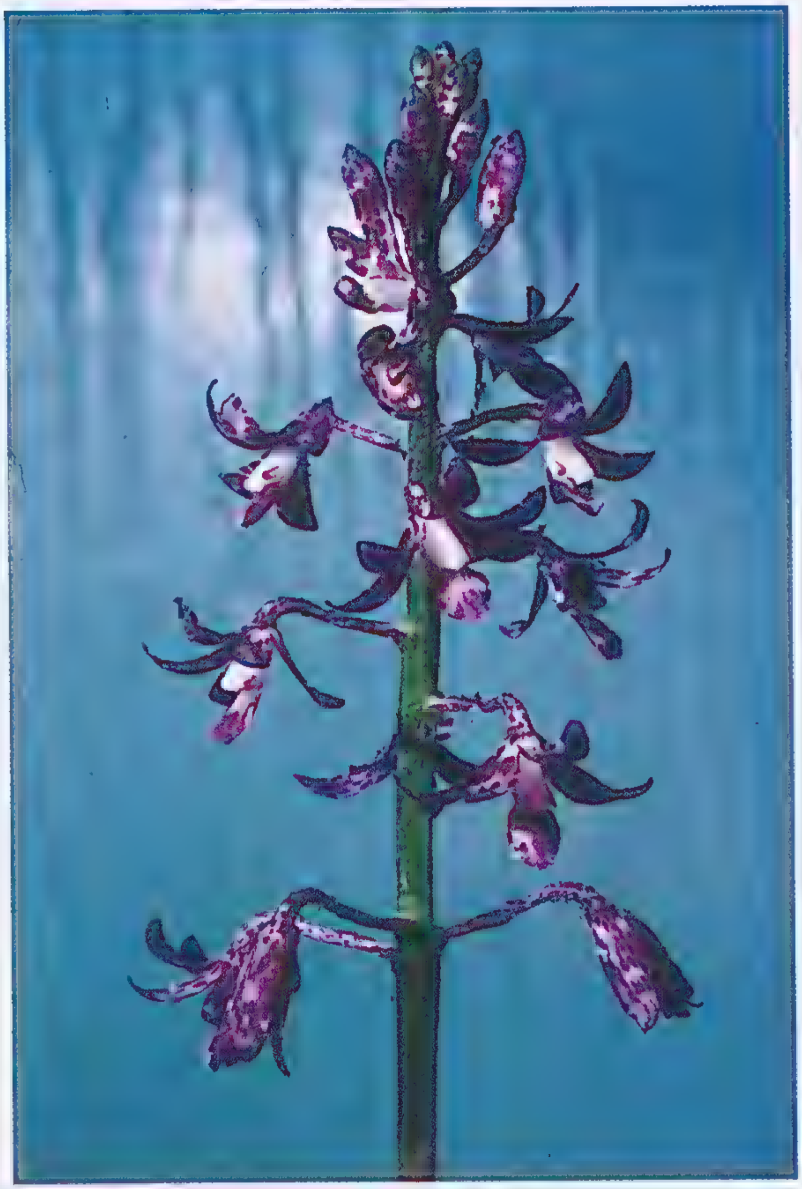


Figure 5. *Dipodium variegatum* showing very heavily spotted flowers. Photo Bruce Gray

Sarcanthinae Growth Characteristics and Culture

Text and photos David Butler
david.greenvista@gmail.com

Sarcochilus on the show bench often look a picture, but to achieve good results the grower needs an understanding of their growth characteristics. This brief overview may help by looking at the various aspects which come together to achieve success and satisfaction.

Flowers

Enjoyment of the flowers and the expectation of even more beautiful things to come keeps growers keen. Some *Sarcochilus* produce all their flowers at once, while others flower progressively along the raceme. Though not as showy, the latter extend the flowering time with a few, such as *S.* Velvet, being rarely out of flower. Racemes may be upright, arching, or pendulous. The important aspect when showing is that the flowers are attractively and evenly displayed. A new twist is the current interest in peloric flowers, where the petals mimic the labellum. Although not everyone's cup of tea, peloric flowers can be very attractive, and at least one example has received an AOC Quality Award.

Floral display

Flowering can often be a bit untidy, but with a little help from the grower a pleasing floral display can be created. The aim may be either to show off the flowers all round as a 'pot plant', or with a focal point in mind, as in being viewed from the front. In both cases the untidy floral display may have been due to the way racemes develop in the leaf axil and then follow the direction of the leaf. The effect is often that they extend out from opposite sides of each growth rather than towards the viewer. While still pliable these racemes can be guided into favourable positions where they will 'set' to best effect and I have found bamboo skewers ideal for this. It is best done on warm days, keeping in mind that the newly developing buds are quite brittle. It is a bit fiddly but the result makes it all worthwhile, and the skewers can be removed from the pot well before actual flowering.

Foliage/Leaves

Plants are generally compact and attractive, the leaves being arching or upright, and the plant shape being influenced by the various species which make up the hybrid. All leaf shapes can present well and make a good display, but upright foliage is an advantage when upright racemes are preferred. The flowers are easier to see, and the upright habit allows plants to be grown closer together. Where foliage is particularly arching or lax it is usual to hang the plants, or at least elevate the pot in some way.

Leaf colour

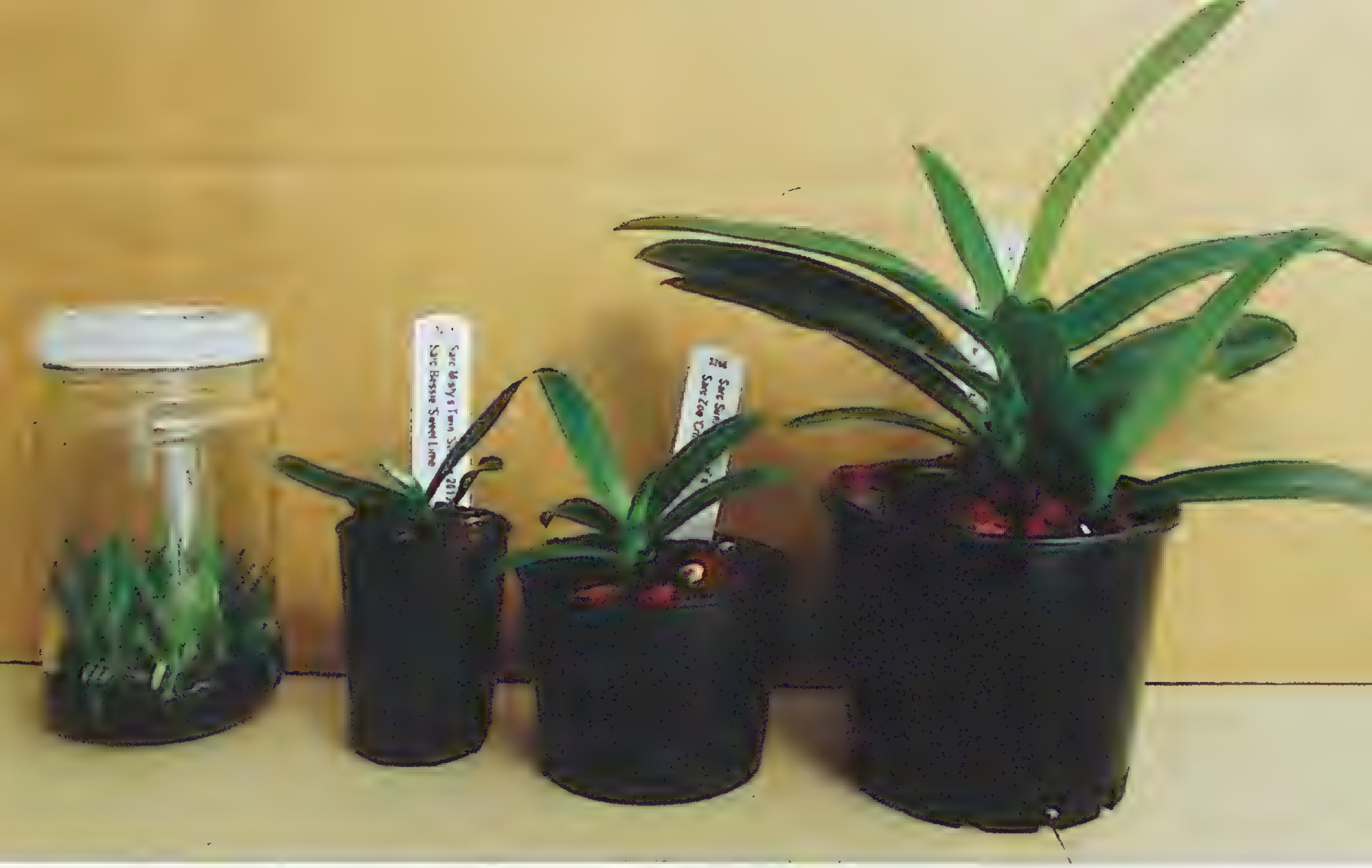
Some species have foliage of a brown or bronze colour, and this trait may carry through when they are used in hybridising. Occasionally the resulting seedlings will have leaves of an even darker colour than those of either parent. The dark coloured foliage, being still a bit of a novelty, adds interest to a collection but it can also lead to disappointment as plants with dark leaves often have white or pale flowers.

Roots

The nature of roots varies depending on which species are in each hybrid. This is especially so when these include the small epiphytic species (twig epiphytes). These usually prefer to be mounted as they like good air movement and plenty of space for active roots. Should the old roots of a potted *plant* rot away and any new roots avoid the potting medium, it may be timely to try a more open mix or even resort to mounting the plant on a suitable host. Either way, relocation to a more ventilated position will often work wonders, as it is not unusual for the grower to find seedlings of similar breeding, or even siblings, to have quite differing cultural requirements.

Cuttings

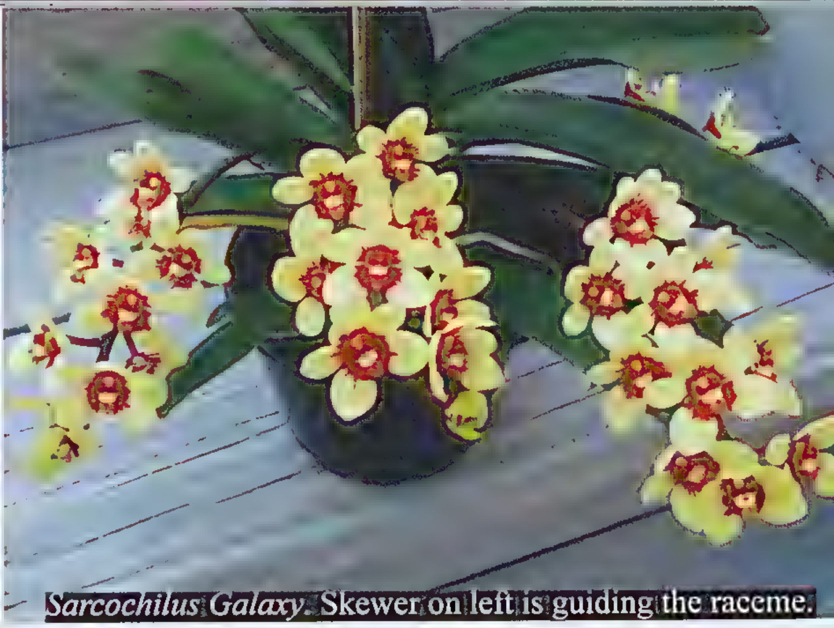
When a plant is divided some pieces may lack roots. These can be treated as 'cuttings', whereby the lower leaves are removed and the plant potted in sphagnum moss for the length of the bare stem. After roots form, which will take some months, the plant may be re-potted into normal mix, taking care not to damage the new root tips.



Progression of seedlings from flask to 50 mm, 80 mm and 100 mm squat pots.

Seedlings flowering in 80 mm squat pots.

50 mm community pots for small seedlings



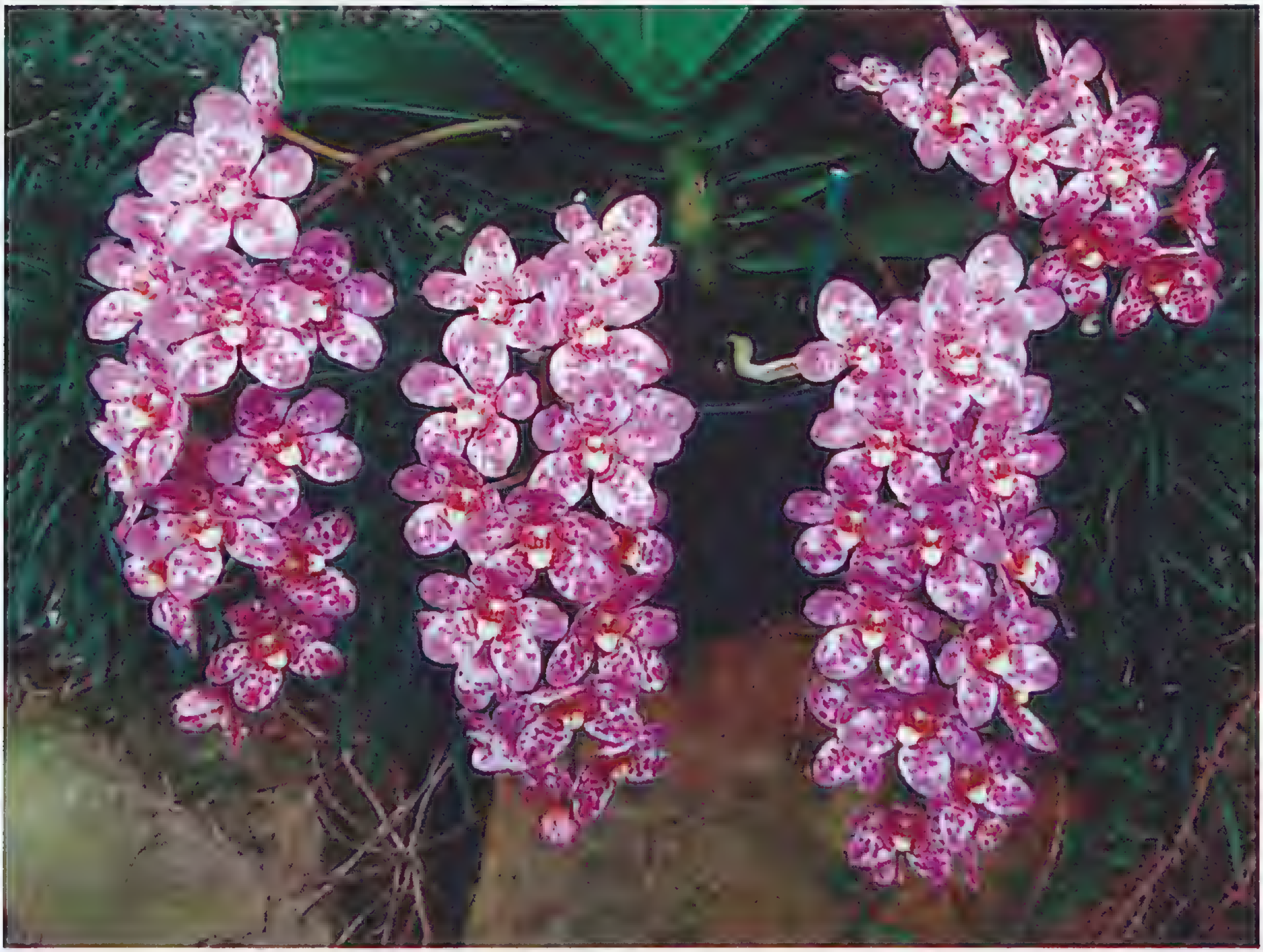
Sarcochilus Galaxy. Skewer on left is guiding the raceme.

Sarcochilus Velvet, with lax foliage and aerial roots.

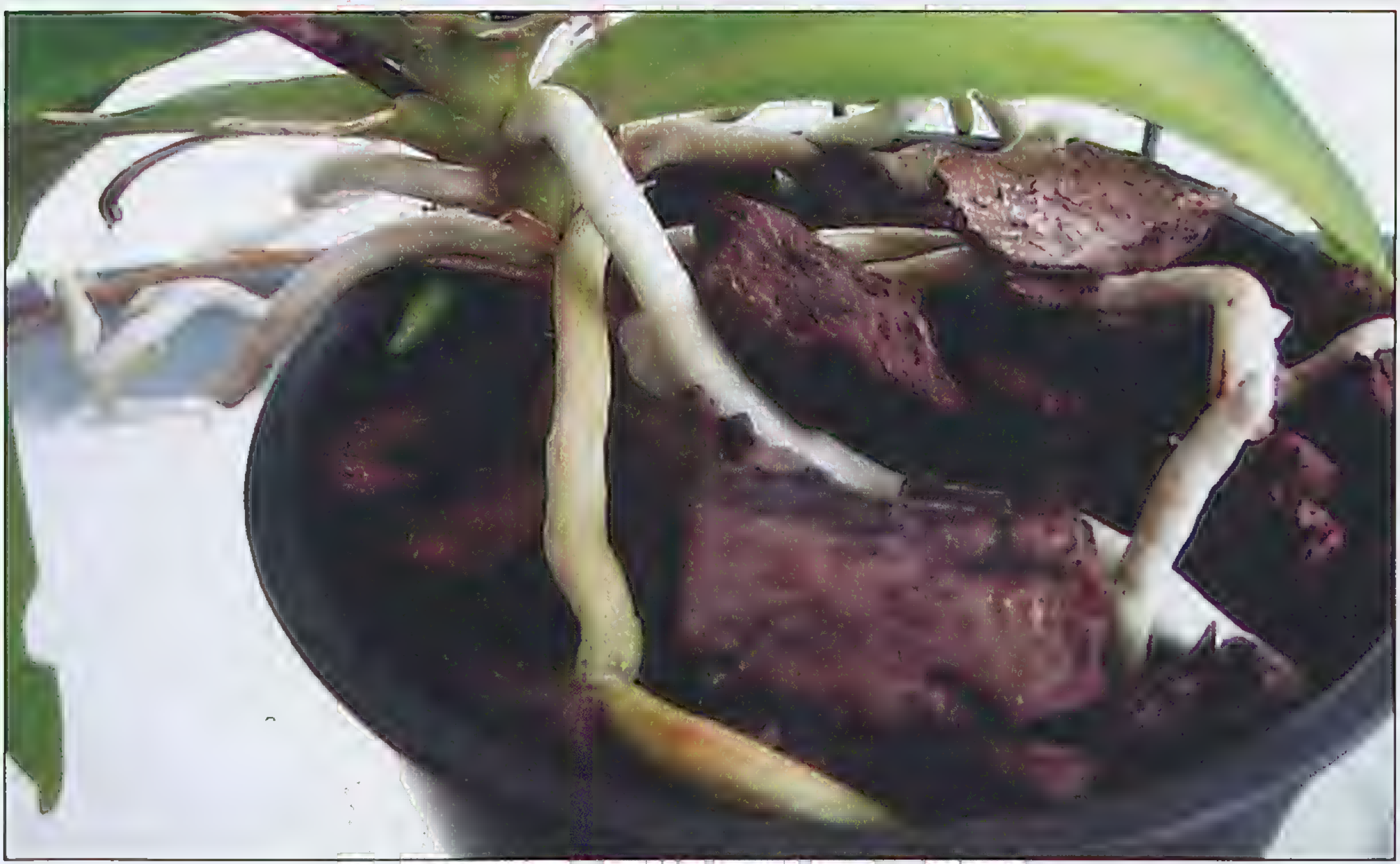
Clumping growth.

Humidicrib formed by a freezer bag over bent wires.

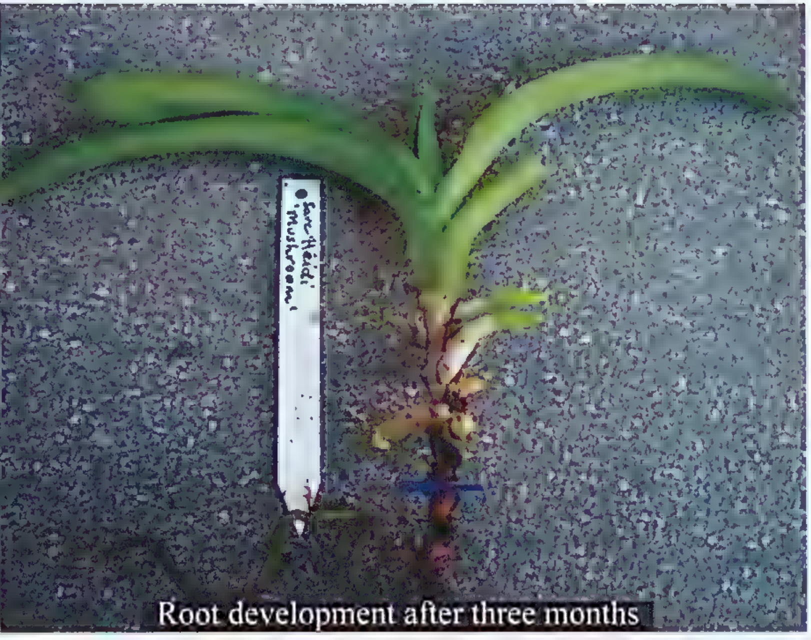
Potting mixture of bark, scoria and perlite.



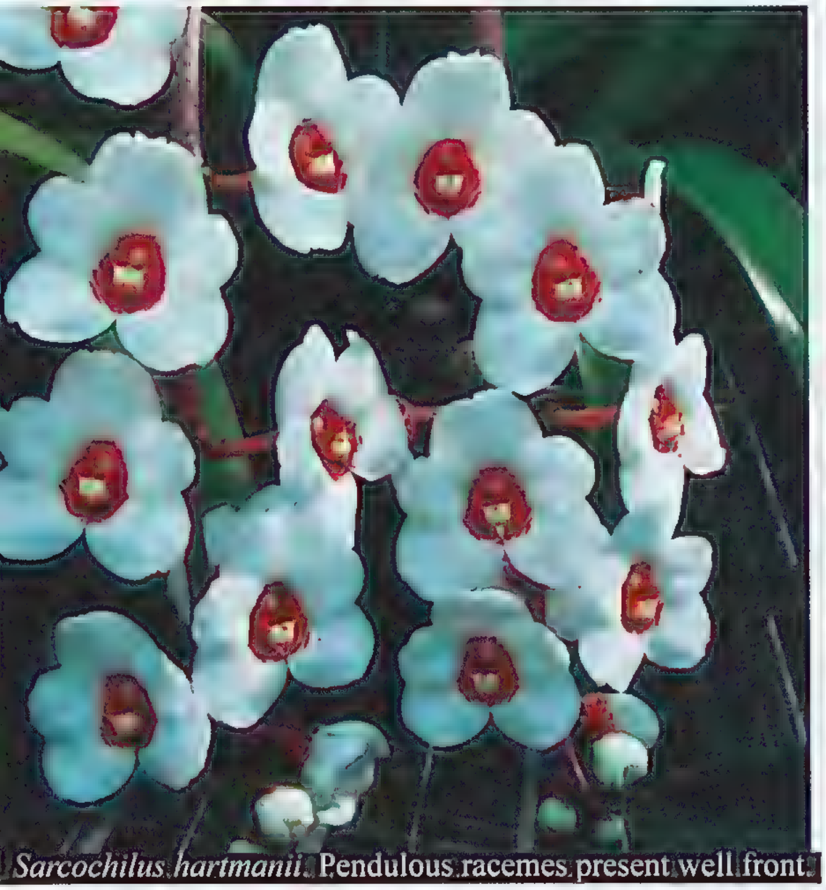
Sarcochilus Burgundy on Ice with racemes positioned.



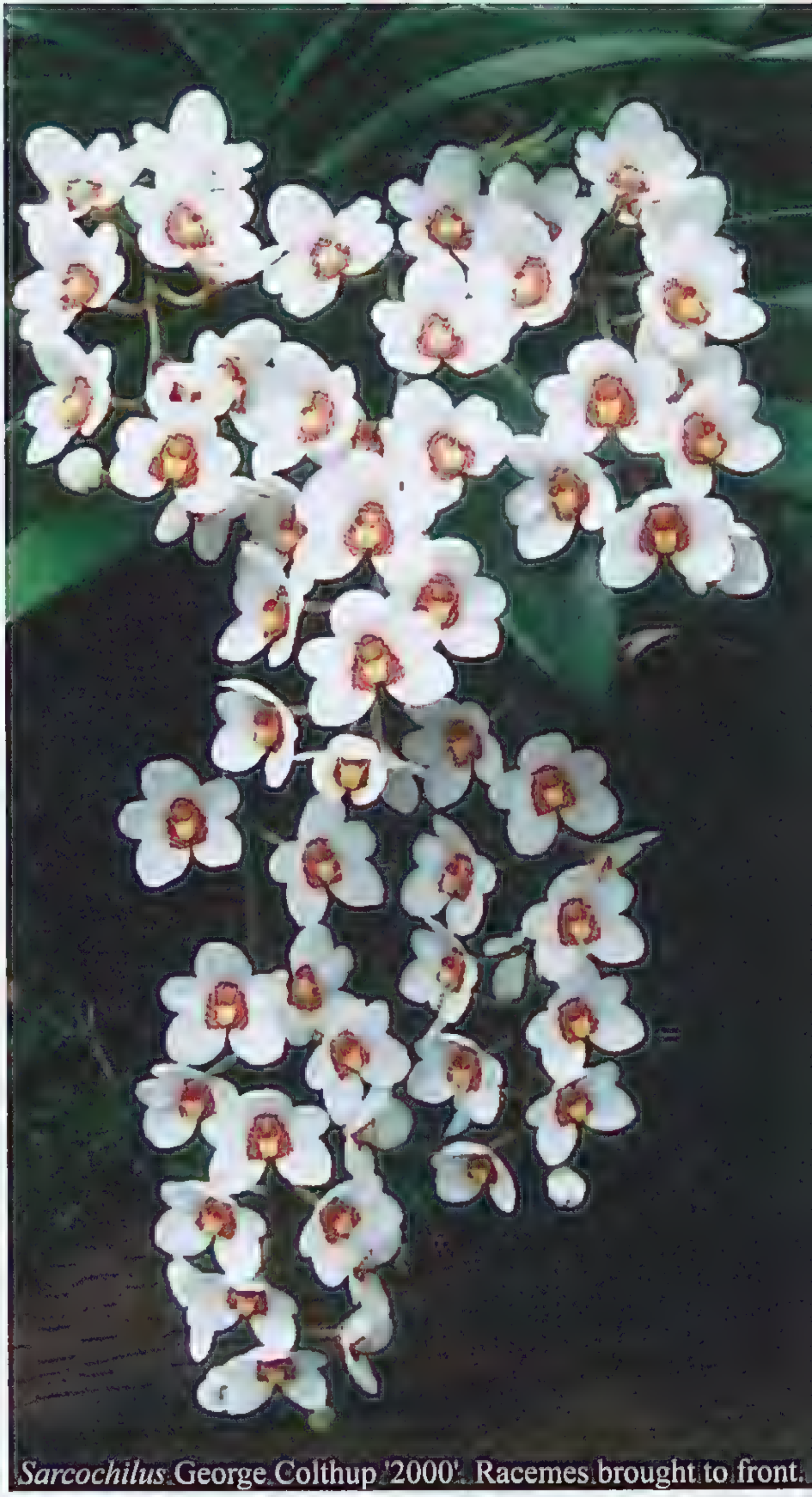
Sarcochilus Velvet growing strongly in very coarse bark.



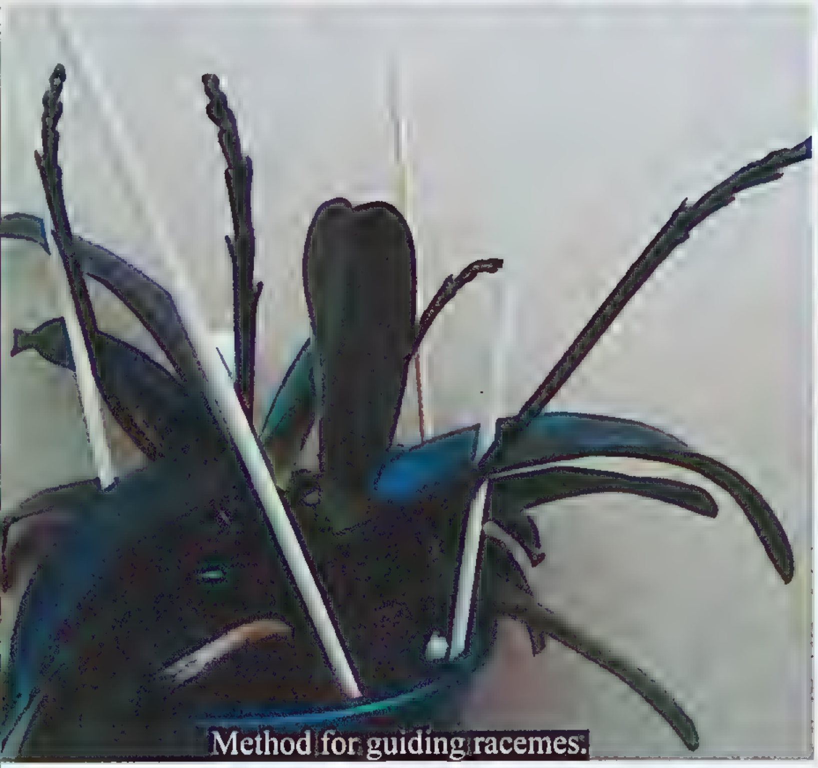
Root development after three months



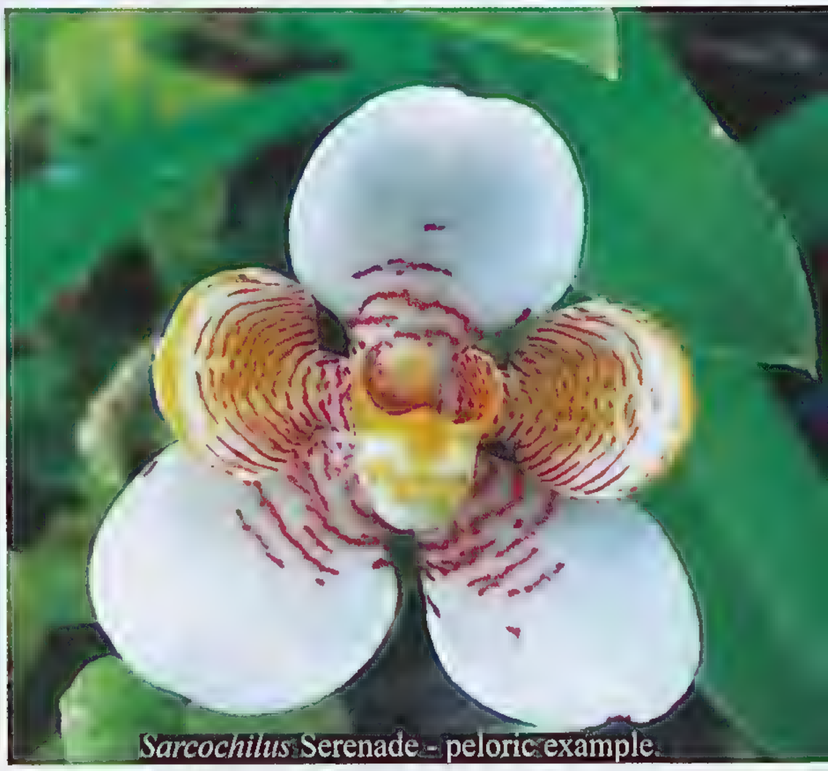
Sarcochilus hartmanii. Pendulous racemes present well front.



Sarcochilus George Colthup '2000'. Racemes brought to front.



Method for guiding racemes.



Sarcochilus Serenade - peloric example.

Loss of centre leaf

Sarcochilus grow monopodially by forming new centre leaves at the top of each growth. Removal of the centre leaf stops a growth forming more leaves and it will simply stop growing. All is not lost, however, because new side-shoots usually form at the base of the growth, which itself should stay healthy and may even flower.

Planting out from flask

Seedlings from flask are usually planted out into tubes or community pots. In the case of tubes, the smaller seedlings may be planted a few at a time (the tubes acting as miniature community pots) and separated when big enough. Growers have many ways of maintaining a humid environment for newly deflasked seedlings but one way is to deflask into community pots which can then be enclosed with a plastic bag supported on bent wires. Freezer bags work well for me as they can gradually be torn open at the top to harden up the seedlings. Make sure humidity in the plastic bag is not excessive or the plants may rot.

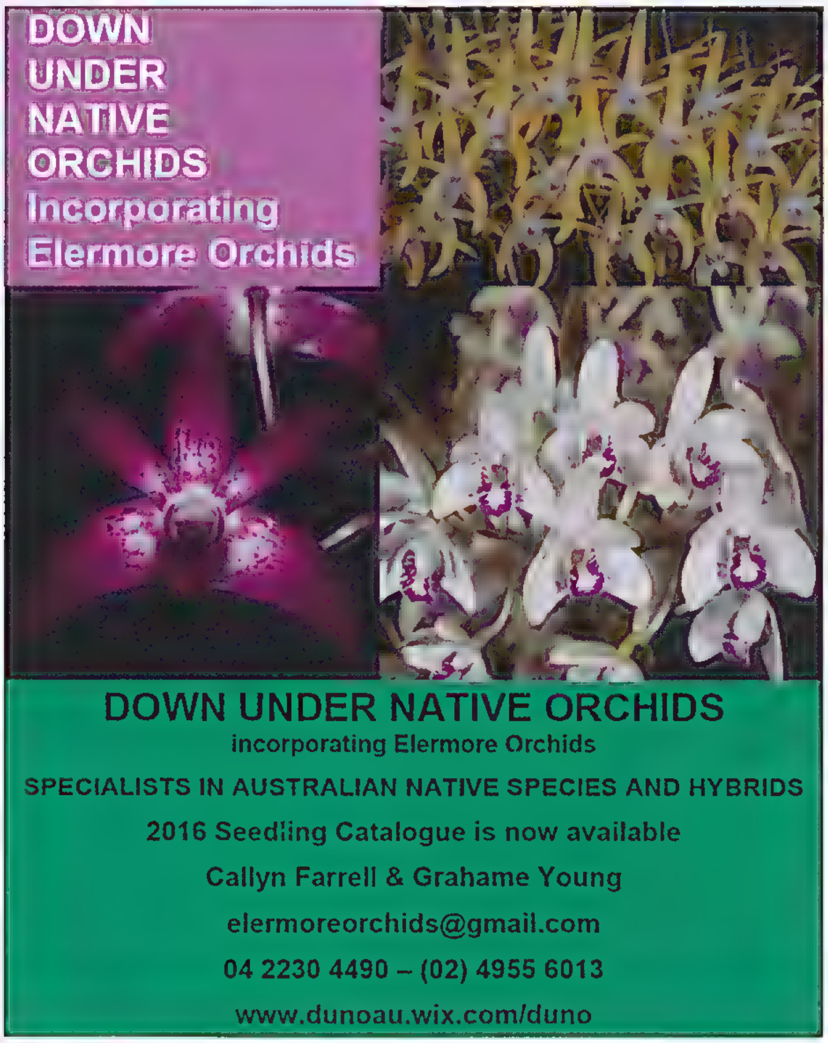
Progress to flowering

Hybrids normally progress from flask to flowering in three or four years, depending on growing conditions and the nature of the species in each plant's background. The method I use, based on my growing environment, is to deflask seedlings into tubes, then into 80 mm squat pots, and possibly into 100 mm, by which time all the seedlings should have flowered. After trying many potting mixes I have settled on pine bark in various grades, to which is added a small amount of pebbles (or scoria), and very coarse (jumbo) perlite. To ensure the mix is very free-draining and doesn't remain too wet, the bark size is increased as pots get larger. Along the way individual seedlings may need differing treatment, or may even need to be mounted, all of which adds to the challenge of raising healthy plants.

Presentation

A little understanding and attention to detail produces well grown and displayed plants which attract the attention of both judges and viewers, giving the grower a real feeling of satisfaction. These notes, drawn from my experience, may help budding *Sarcochilus* enthusiasts to further enjoy the hobby and achieve such a goal.

David Butler is a well know breeder of Australian orchids.



DOWN
UNDER
NATIVE
ORCHIDS
Incorporating
Elermore Orchids

DOWN UNDER NATIVE ORCHIDS
incorporating Elermore Orchids
SPECIALISTS IN AUSTRALIAN NATIVE SPECIES AND HYBRIDS
2016 Seedling Catalogue is now available
Callyn Farrell & Grahame Young
elermoreorchids@gmail.com
04 2230 4490 – (02) 4955 6013
www.dunoau.wix.com/duno

AUSTRALIAN DECIDUOUS TERRESTRIAL ORCHIDS
Available as….
Bare root plants: May – August
Dormant tubers: November – February

Easily grown species and hybrids from a range of genera including: *Caladenia, Chiloglottis, Corybas, Cyrtostylis, Diplodium, Diuris, Microtis, Pterostylis* and *Thelymitra*.

NESBITTS ORCHIDS
PO BOX 72
WALKERVILLE, SOUTH AUSTRALIA 5081
Phone: (08) 8261 1550
Email: lesn@adam.com.au

Dendrobium mortii F. Muell. section *Rhizobium*

Gerry Walsh and Peter Adams
rocklilyman@gmail.com

Summary

Dendrobium mortii is a small, pendulous species of moist, shady rainforest in central Eastern Australia. It has a complex taxonomic history, from the time of the original description by F. von Mueller in 1859. It is one of the most attractive but less commonly seen and cultured species in section *Rhizobium*, and can be successfully grown on tree fern mounts under conditions that approximate the natural habitat.

Introduction

Dendrobium mortii is distinctive, the daintiest and the least conspicuous member of the *Rhizobium* section of *Dendrobium*. It was named after the original collector T.S. Mort. For many years it was known as *D. tenuissimum* Rupp., despite Rupp having seen the type specimen of *D. mortii* from the Hastings River area, which was used for the original description by Mueller in 1859 (Clements 1989). The species that Rupp (1943) and Dockrill (1969) interpreted as *D. tenuissimum* was in fact *D. bowmannii* which grows far to the north of the Hastings River.

Characteristics

Dendrobium mortii is unobtrusive when seen in its natural shady rainforest surrounds, is variable in size, and may form moderately large pendulous plants. It has the form and growth habit of *D. teretifolium*, except that the stems are thinner, 1.5-2 mm wide, and usually much shorter. The leaves are cylindrical, averaging about the thickness of a match, 4-11 cm long, and faintly grooved longitudinally.

The average size of a *D. mortii* plant is difficult to define. In some situations it can be very compact, with short spaces between the leaves, or it may be very long in the stem but only carry 5-6 leaves. An average plant would hang down for about 40 cm and carry around a dozen leaves. Under favourable bush house conditions this species can form clumps that may be a metre or so long and develop a mass of branching stems. However, we have never observed a wild plant reaching the dimensions of a well cultivated bush house specimen.

Plants can bloom at a very small size – a size at which other section *Rhizobium* species would be considered as only seedlings. The flowers are generally 20–25 mm wide but occasional giants can be seen reaching 50 mm. The most appealing flower colour is vivid lime green, but many are less intensely coloured. Some will open an avocado yellowy colour, and may have purple striations visible from the front, and most intense on the back of the flower. Regardless of the colour on opening, the blooms of *D. mortii* will age to this same yellowy hue. The labellum is white and always displays some degree of bright purple blotching or edging along the side lobes. It forms a curve ending in a fine point and has attractive ruffled or crenulated margins.

The flower is a typical *D. teretifolium* type shape, but with one very distinct difference. When the flower first opens it stays the typical shape for only a short time. After a day or so the segments suddenly reflex quite severely, to the extent that the tips of the petals and sepals will actually touch behind the mentum – sometimes literally turning itself inside out. Reflexing of the tepals of *D. mortii* is natural for the species and can't be considered a fault when judging unless it is excessive, which is a judgement to be made. Many times inexperienced new judges, and some well-established ones as well, completely ignore a *D. mortii* plant with a waving hand as "too reflexed".

In Sydney, late September is the peak flowering time, usually missing most of the spring shows. It is not that frequently seen at monthly meetings. In Melbourne it flowers in October, and is seen at some shows but not often at meetings. *Dendrobium mortii* is not shy to flower. It produces a good number of blooms when compared to the sparseness of the plant itself. It sprouts many more flowers proportionate to its bulk than do the similar species, *D. pugioniforme* and *D. teretifolium* var. *fairfaxii*. Flowers are almost always solitary and are highly scented.

Dendrobium mortii has never been a common orchid in captivity. In the heady days of rainforest logging it was occasionally procurable from select native

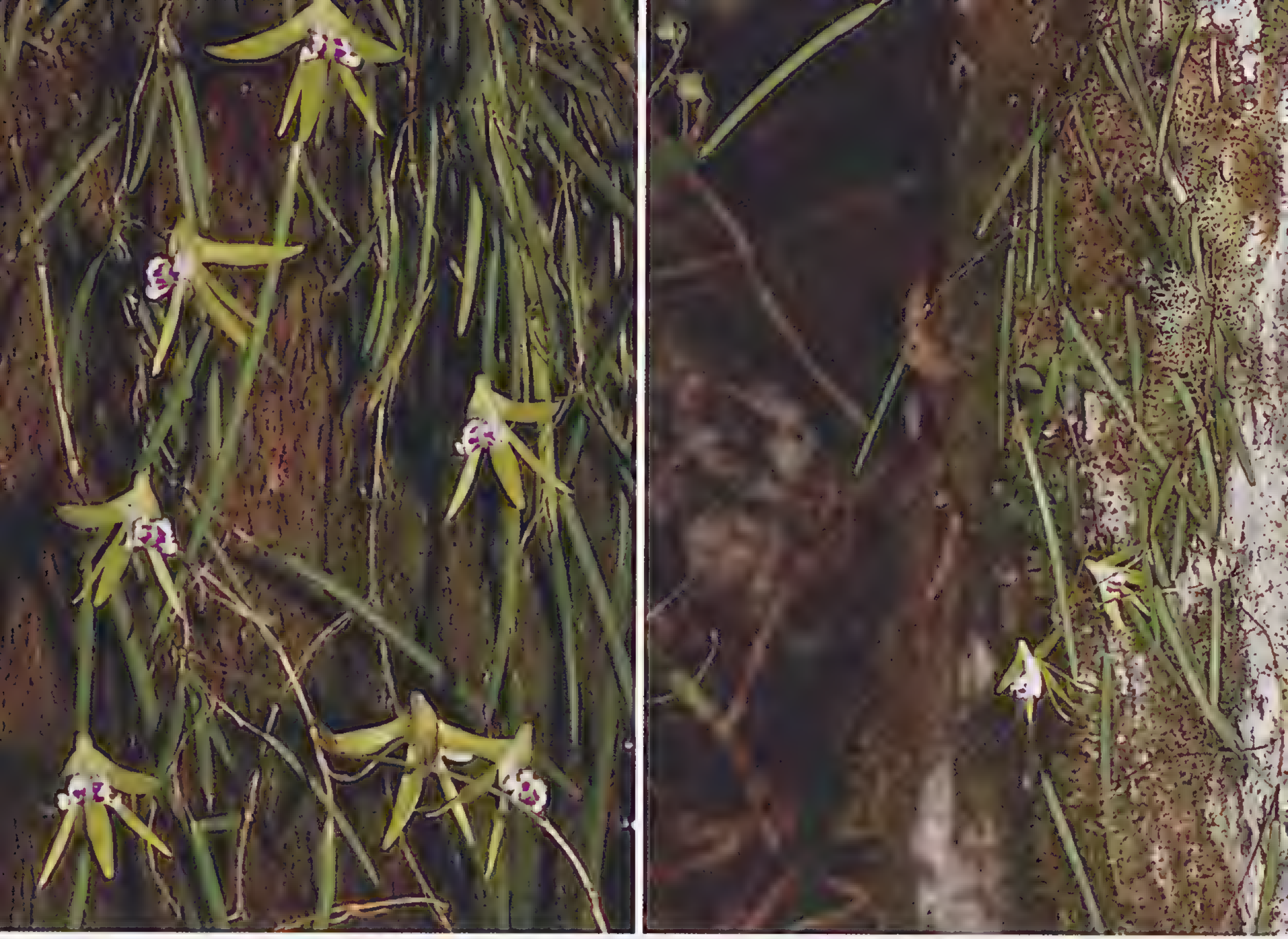
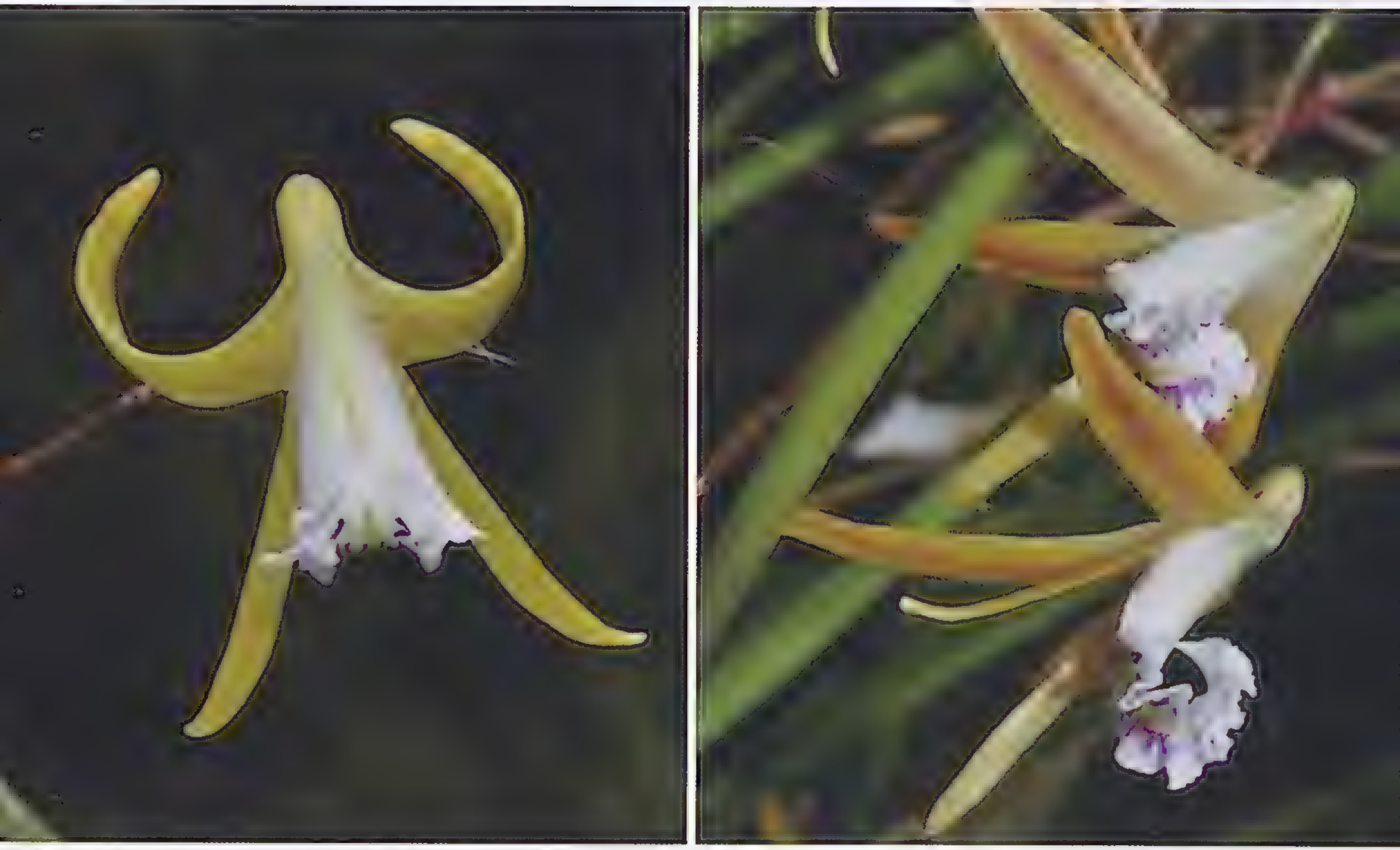


Figure 1. 1a. *Dendrobium mortii* on a tree fern mount. 1b. *Dendrobium mortii* epiphytic on a large rain forest tree.
Photos P. Adams



1c. *Dendrobium mortii* with tepals mildly reflexed with purple-brown striations.

1d. *Dendrobium mortii* first flowering seedling 2017, on mount for three years.

nurseries if you really searched. Since 1983, when rainforest logging in New South Wales was officially ceased, the availability declined sharply. This, combined with its general uncommonness in the wild, is the reason for its infrequent appearance at shows and meetings. Fortunately, some commercial growers are now making flasks available if you are lucky enough to find them.

Distribution

Dendrobium mortii is distributed from the southern slopes of the Barrington Tops in the south, northwards to at least the Lamington Plateau in extreme southern Queensland. Places where I (GW) have made personal observations include the Patterson River, Allyn River, Williams River, Dingo Tops, Ellenborough River, Forbes River, Hastings River, Cockerawombeeba Creek, Wilson River, Dorrigo Plateau, Little Rosewood Creek, Richmond Range, Mt Lindesay, Tweed Range and the Lamington Plateau. In the Border Ranges, it grows at altitude on *Nothofagus moorei* rainforest along with *D. pugioniforme,* and *D. falcorostrum* - which is the dominant orchid.

The one aspect that links all these far flung locations together is rainforest. Not just marginal rainforest and semi-wet brush country, but tall and towering rainforest, sub-tropical (Wilson River) or cool temperate coachwood-dominated (Cockerawombeeba Creek). In the lower altitudes, 500 m or so, it is seldom found far from creeks. It will colonise ridge tops over 100 m, where the effects of mist and fog are intensified. Around the higher parts of the Tweed Range, dainty curtains of *D. mortii* hang from mossy limbs just above the road.

In 1987 I (GW) observed several plants growing on rocks high up on Mt Lindesay in the Border Ranges – but still under well-developed rainforest. We have not heard of another instance of *D. mortii* occurring as a lithophyte so this must be a very rare habit. One of these rock-dwellers was even flowering – in July, a very early date. Most of the older hoop pines about Mt Lindesay carry copious quantities of *D. mortii*, along with a host of other species. If you plan to arrange an outing around this beautiful area be prepared for a long and hard day – Mt Lindesay is not for the inexperienced. The difficult terrain and difficulty in finding *D. mortii* in rainforest makes assessment of distribution difficult.

Around Dorrigo, plants can be very common on hoop pines in undisturbed rainforest. Not far from the hamlet of Megan, there is a gnarled, stunted old hoop pine which has forked about three m above the ground – very unusual indeed. In it there are clumps of *D. speciosum*, *D. falcorostrum* (even more unusual), *Bulbophyllum weinthalii* and literally dozens of plants of *D. mortii* – most of which are advanced seedlings. The leaves are strange because they are no longer than 3 cm, and about as thick as a drinking straw. We can offer no explanation for this extra-short/extra-thick leaf habit. Similar looking plants are found about the whole district, but only on hoop pines. The flowers are typical for *D. mortii.*

Natural Hybrids

As with most of the species in section *Rhizobium*, *D. mortii* will hybridise naturally with other *Rhizobium*. Natural hybrids have been recorded with *D. pugioniforme* and *D. schoeninum*. In 1992 I (GW) was in the Border Ranges picking up hoop pine limbs while searching for *B. globuliforme*. This was a great locality for a wide range of species and at one point I found a small plant of what appeared to be *D. schoeninum* on the ground. Its flowers were very colourful for that species but it wasn't until I examined it more carefully in full sunlight that I realised it was totally green, a colour different from normal for *D. schoeninum*. There was a good deal of *D. mortii* there, and this plant was in all ways intermediate between the two, and was most likely a natural hybrid. It has now grown up and puts on a great display every spring. You can be lucky – and the more observant you are, the luckier you get.

Cultivation

Under cultivation, *D. mortii* is slightly out of step with its terete relatives. Whereas *D. schoeninum* and *D. teretifolium* are generally fairly quick to establish on a new mount, *D. mortii* is slow by comparison. The overly thin stems, roots and leaves, confer a limited capacity to store up an energy supply. It relies instead on a particular habitat with exact and totally reliable doses of shade and moisture. It is similar in the bush house

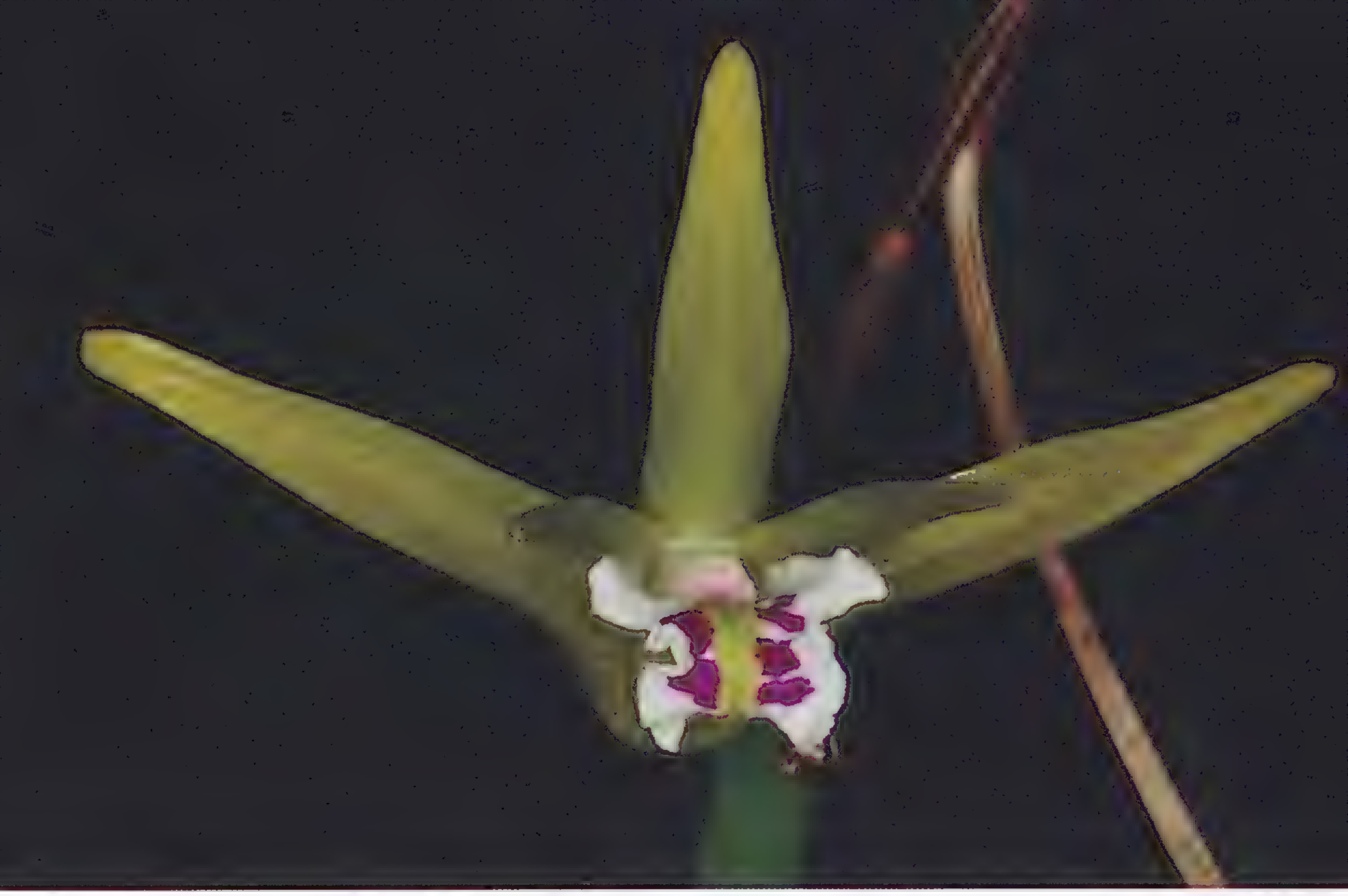
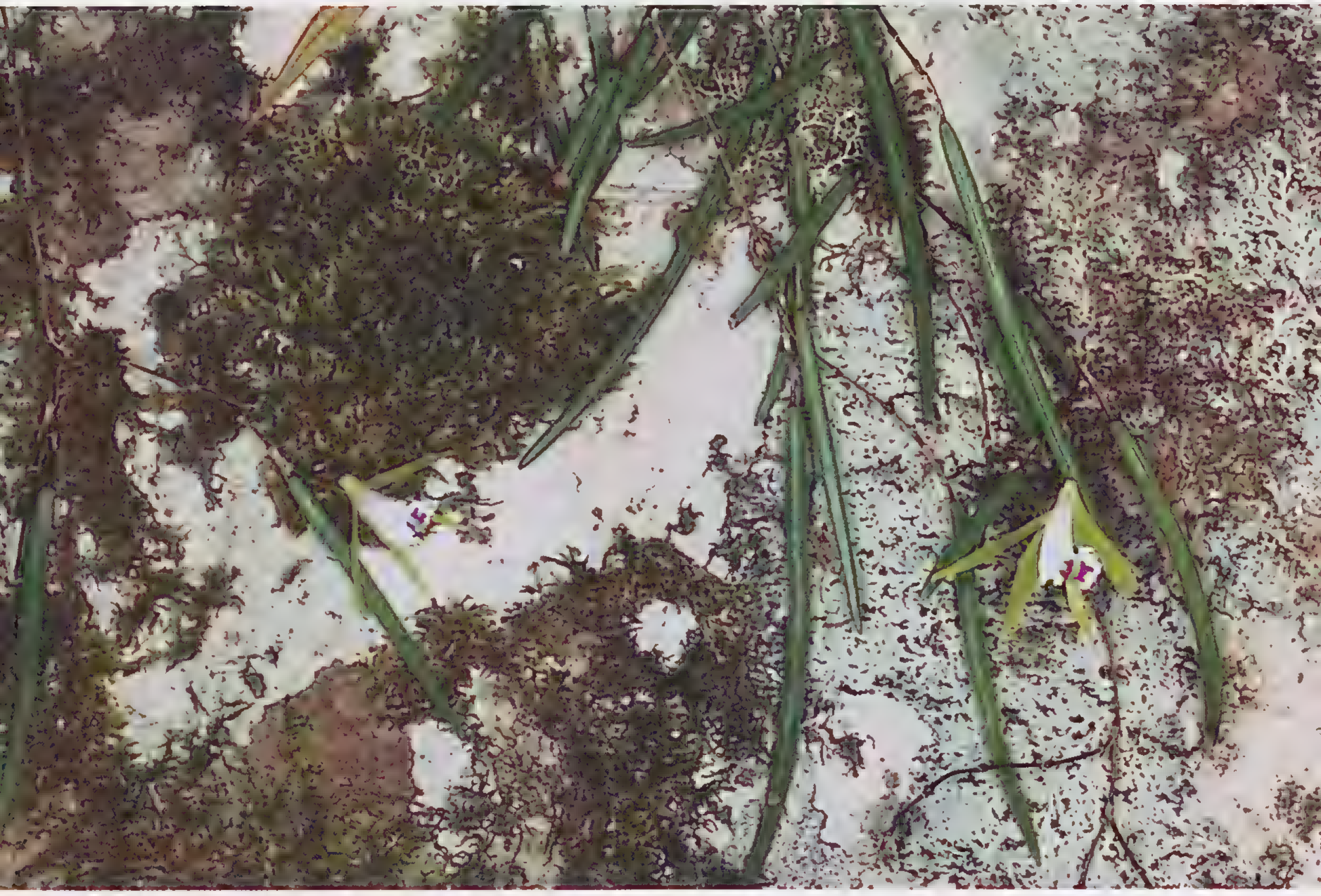


Figure 2. 2a. *Dendrobium mortii*, a resupinate flower, lime green.
Photos Jon Cara



2b. *Dendrobium mortii*, epiphytic with lichens.

- provide the correct fairly constant conditions or bid it farewell.

No other host material comes close to a good slab of *Cyathea* tree fern. *Dendrobium mortii* loves to let its roots run riot through the spongy fibre. It is very advantageous to use a good handful of epiphytic moss around the base of the plant as well. This is one species where you can allow the creeping *Pyrrosia* fern (rock velvet fern) to establish itself on the mount. It is wise to remove *Pyrrosia* from most orchids because it eventually grows to the detriment of many species. It can become excessively thick and overwhelm the orchid after four or five years. This is not the case with *D. mortii,* which grows very successfully with *Pyrrosia* all around the roots.

Natural cork gives good success too, but always with the moss around the base of the plant. Timber slabs are usually not recommended because of the amount of moisture demanded by *D. mortii.* The surface of the wood soon becomes slimy and the orchid roots inevitably relinquish their grip. This looks totally unsightly, even though they may continue performing their function of nurturing the orchid plant. Ironbark totems are also really good, but they will break down after five or six years, and it is best to avoid remounting if possible. In Melbourne, tree fern slabs are also successful and a trial (P.A.) of deflasking plants onto merbau timber offcuts with a covering of the roots with local *Thuidium* moss resulted in only occasional losses with root growth slow in the first two years. One of 10 deflasked seedlings produced a first flower after 3 years, on a plant with fine leaves about 1 mm in diameter (Fig). Further time is needed to determine if this host material is satisfactory in the longer term. No doubt about it . . . a slab of tree fern is the best host.

Watering must be regular, especially if the plant hasn't established fully. It is not possible to over water *D. mortii*, provided you haven't packed *Sphagnum* moss around the roots and excluded oxygen. Fertilise with weak solutions as for other epiphytic orchids to get the best results.

Shade should be at least 50% or preferably 70%, but *D. mortii* is an unusual epiphyte that can flower in almost total shade. The number of flowers produced in deep shade will be reduced dramatically. Treat your plant well and once established it will perform for you over many years. *Dendrobium mortii* isn't subject to any particular pest that comes to mind. It is an attractive, small terete epiphyte that has attractive spring flowers and is reasonably easy to grow in a shady, moist position. Keep an eye out for plants or flasks to give it a try.

Sometimes interesting information can come to light as growers read about the species and relate their own experiences. Very good knowledge can come in the simplest of ways.

Gerry Walsh has many years of experience in observing plants in the bush.

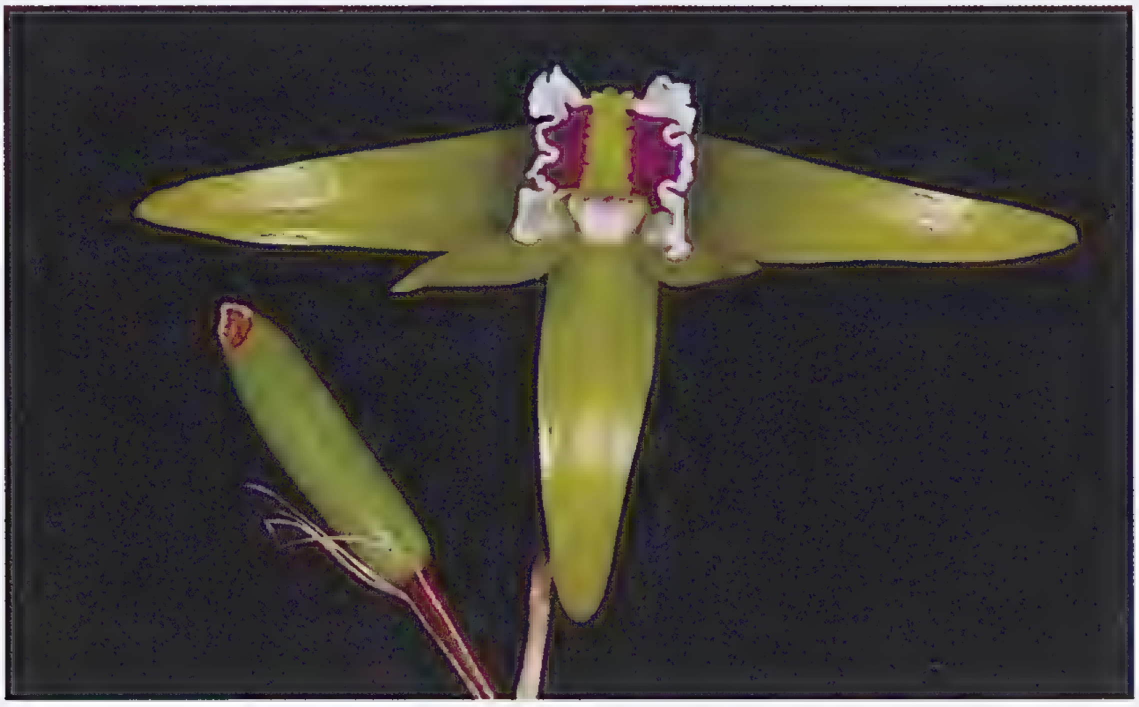


Figure 3. *Dendrobium mortii*, brilliant lime green with purple marked labellum. Photo Jon Cara.

A Most Interesting *Sarcochilus falcatus* R.Br.

Text and photos Gerry Walsh
rocklilyman@gmail.com

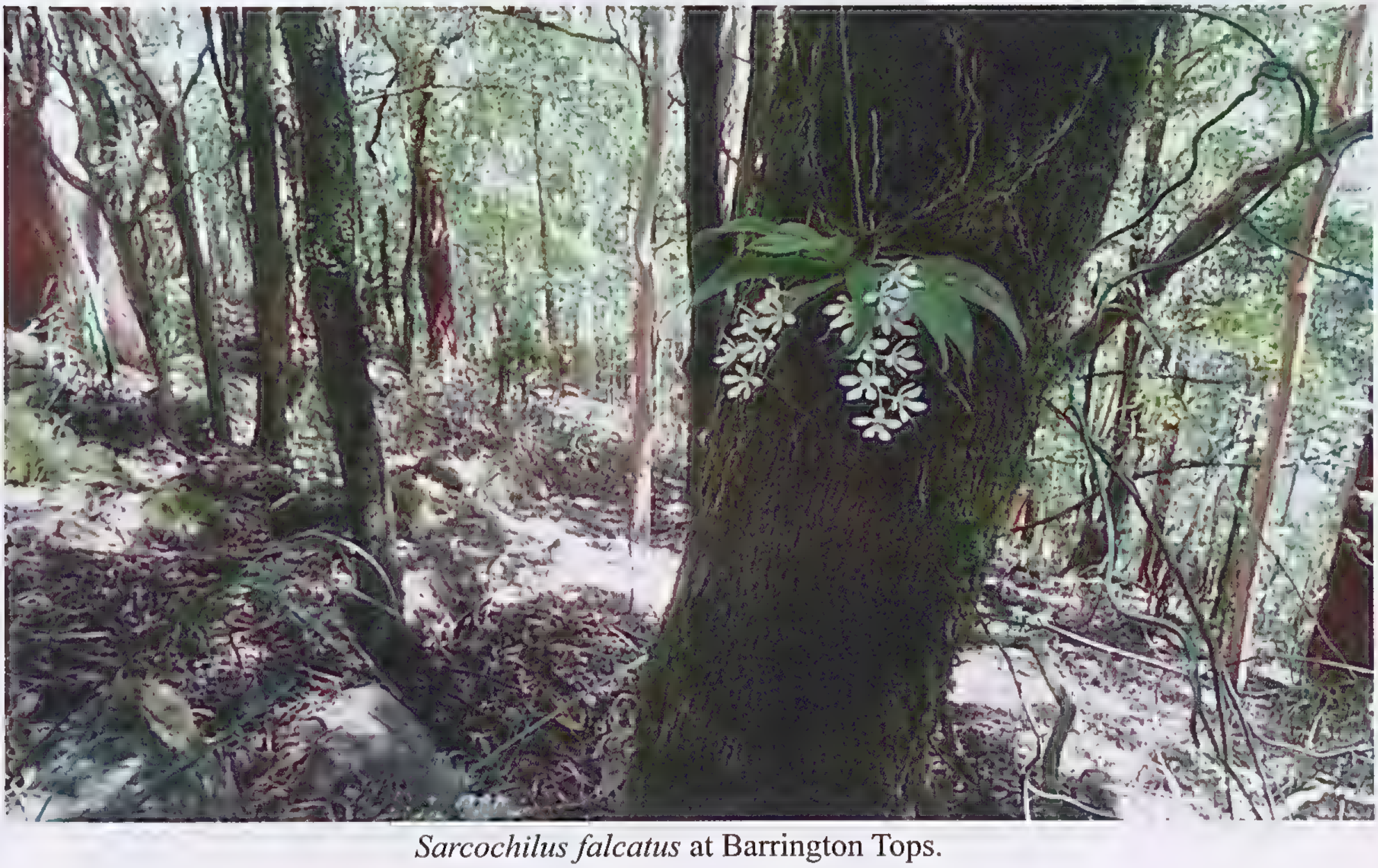
In October 2017 I made a trek to Barrington Tops from my home in the Blue Mountains, New South Wales. This is around a four and half hour drive each way. An equivalent length of time was spent walking along isolated ridge tops with the idea of seeing many flowering plants of *Sarcochilus falcatus* R.Br. in their natural habitat. I undertake this trip roughly every second springtime.

The ridge I chose this time turned out to be an Aladdin's Cave for this beautiful Australian species, commonly known as the Orange Blossom Orchid. On quite small trees along a razor back ridge were many specimen size clumps festooned with long flows of epiphytic moss. Quite literally this was *S. falcatus* heaven.

Some plants were huge and multi headed. Single lead plants often supported over 20 leaves. Thousands of seedlings squeezed out a position along the lichen and moss draped limbs. In some cases, there may have been thirty or so plants to a metre of limb. The ground under the often-dead host trees seemed carpeted with rotting branches with orchids still attached.

One plant was noticed that seemed different from the rest. The foliage was a light green compared to the normal colour. I climbed a steep bank a few metres to have a closer look. What I saw was completely surprising. The flowers of this plant were pure white with a bright yellow on the side lobes of the labellum. There was no typical purple/mauve colouration associated with *S. falcatus* to be seen on the flowers. The terminology for describing such a colour form of an orchid is a point for discussion and various interpretation. There was no colour apart from white and yellow, on the front of the bloom or on the reverse of the segments.

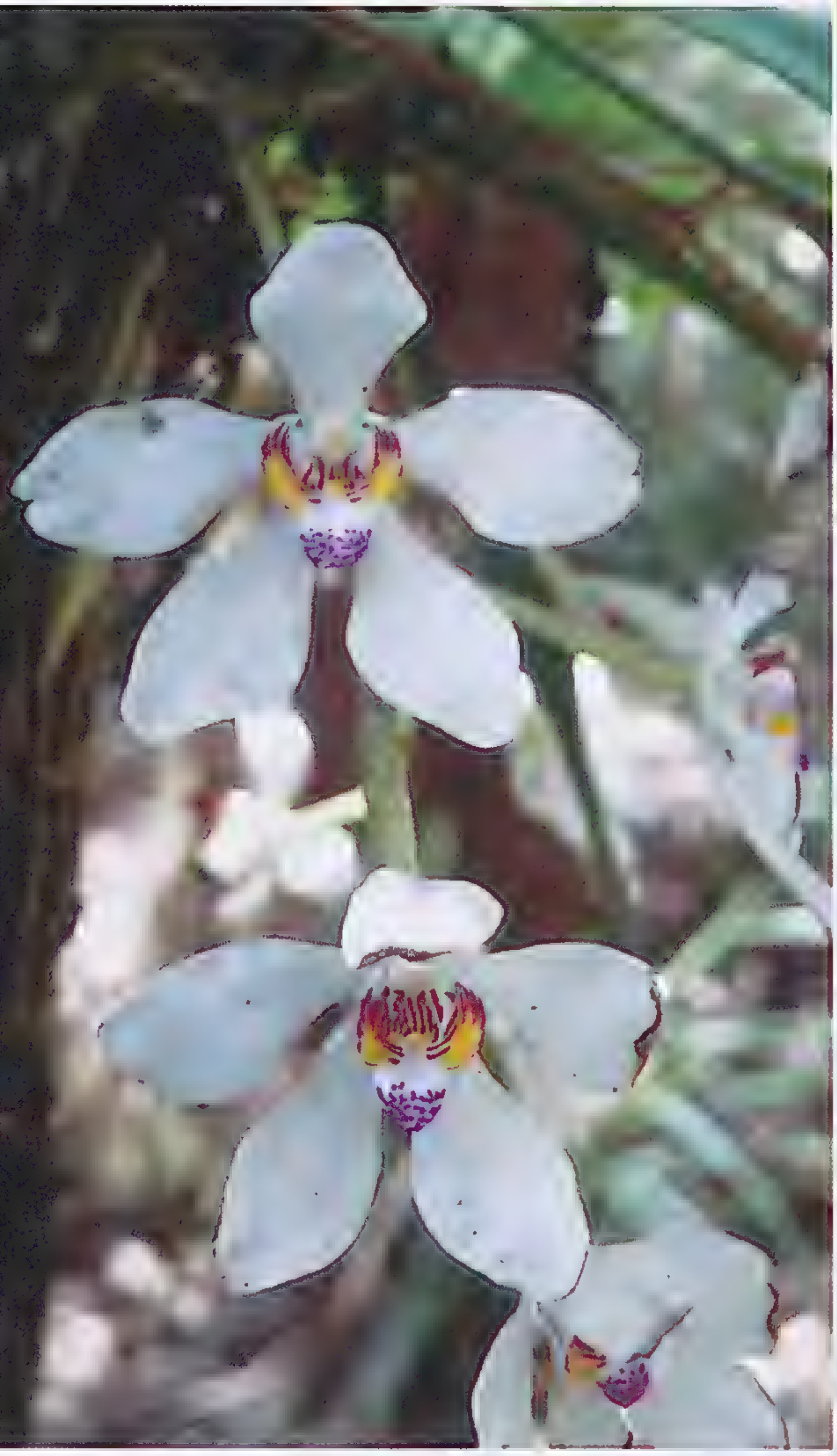
I have spent a major part of my life looking at *S. falcatus* plants. Never before have I seen a single example of the species like this one. Please don't confuse it with the form which growers describe as the "Big White, late flowering" form of *S. falcatus*. Big White forms (they should be a taxon in their own right, I believe) are mostly white with a yellow labellum as well. However, there is always some purplish speckling on the labellum and ridge lines of light mauve on the reverse of the flower. I have not seen a yellow/white form of the Big White *S. falcatus*.



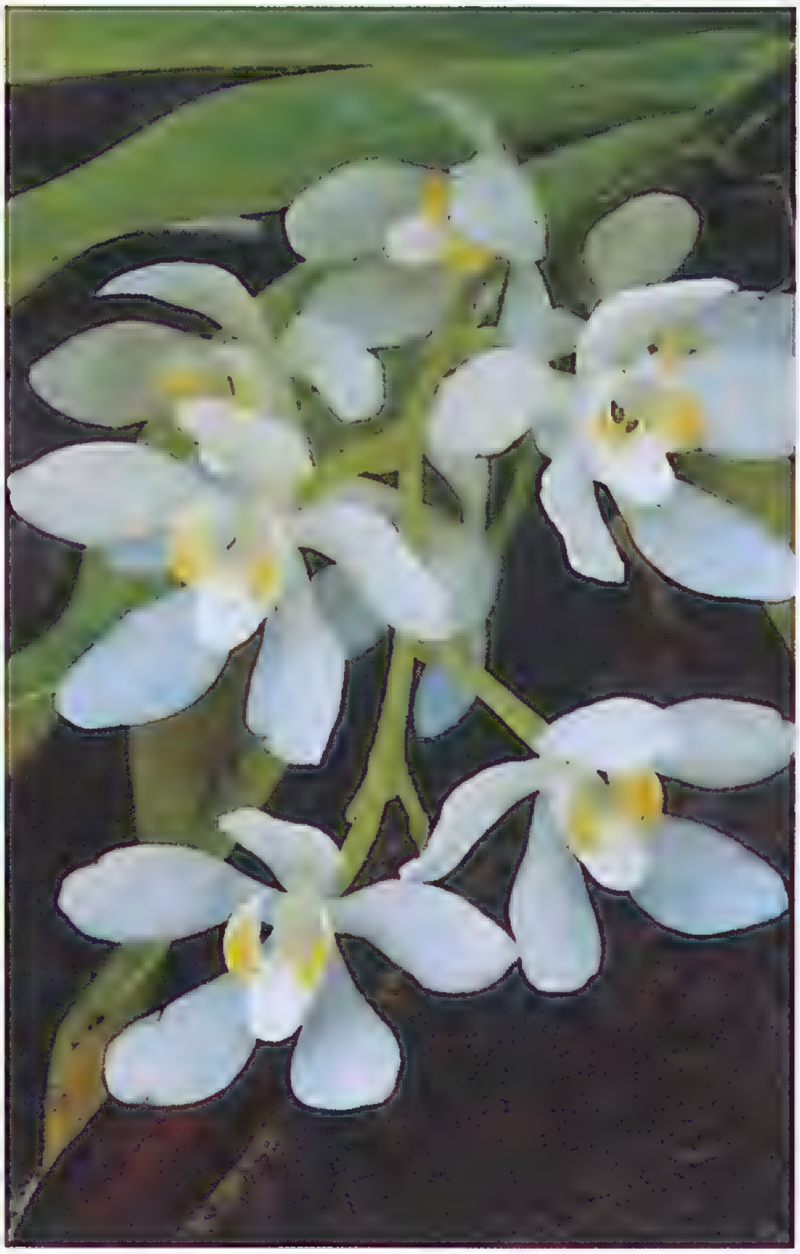
Sarcochilus falcatus at Barrington Tops.

Along the ridge I was searching were so may flowering plants of *S. falcatus* that it was absolutely dazzling. There are always big colour variations in the labellum colours. But this is, so far as I know, the first *S. falcatus* lacking any colour apart from yellow or white. I do not grow, or make, *Sarcochilus* hybrids, but I am left wondering if the genes of my special plant could be of interest in that field. It doesn't matter: this plant is stunning by itself.

Editor. Albinism in plants is a pale colouration due to a deficiency of chlorophyll or chloroplasts and this does not apply to these *S. falcatus* flowers. This special plant is a rare colour form with only white and yellow. (Ref. Bailey J., *Collins Dictionary of Botany,* Harper Collins, Glasson)



Sarcochilus falcatus, quality colour form.



Sarcochilus falcatus, yellow/white form.

The Rock Lily Man

Your Starting Point For

Den. speciosum

Gerry Walsh: Grower & Breeder

Seedlings, Divisions, Information

www.therocklilyman.com

0247 54 3818

30 NEW SEEDLINGS OUT NOW!

2017 Kempsey Speciosum Spectacular

Text John Zietsch
Jzi01935@bigpond.net.au
Photos Bill Dobson

Another very enjoyable weekend was had by those who journeyed to Kempsey in 2017. It was one of renewing acquaintances and making new ones while enjoying a chat in the hospitality tent or over a few drinks at the presentation dinner or strolling through the show tent enjoying the magnificent speciosums and hybrids.

Wednesday and Thursday prior to the show saw Ted & Winsome Walmsley and their family, assisted by members of ANOS Mid North Coast Group, busy setting up the venue for benching on Friday. Thanks to the Walmsley family cooks, visitors were able to relax and enjoy the Friday night BBQ which was followed by a very informative and detailed presentation by Lloyd Edwards on his breeding of *Dendrobium kingianum* and a thought provoking presentation by Tony Blewitt on *Dendrobium speciosum* and their assessment on the show bench.

After opening at 9am on Saturday morning, the show was closed from 11am to 12.30 pm for judging the 250 exhibits benched by 21 growers from all over the country. It was very pleasing to have several new exhibitors this year and we hope that they enjoyed the experience and will return again next year. Most growers had travelled more than 250km to the show, including Rick Winch who brought two plants from Western Australia to win the most travelled orchid trophy.

It is the support of these exhibitors that makes the Kempsey Speciosum Spectacular possible and ensures that it maintains its reputation as one of the highest quality native orchid shows on the calendar. This support is greatly appreciated by the organisers and visitors for without it we would not have a show and the weekend of fellowship that we enjoy.

Prior to the show the word around was that it was not looking like a particularly good year for speciosums but the plants on the show bench certainly did not reflect that concern. The Grand Champion *D. speciosum* of the show was Ted and Winsome Walmsley's ‘Maddy’, another outstanding plant from the cross of 'Windermere' x 'Daylight Moon'. Ted and Winsome also won Reserve Champion with *D. speciosum* var. *curvicaule* 'Palmerston Mist Mark'. Both plants were awarded by ANOS.

Dendrobium speciosum exhibits.

The champion other species was David Butler's *D. tetragonum* 'Jess' while Bernie Fletcher's *D. speciosum* var. *curvicaule* 'Peninsula Princess' x self was awarded the trophy for Champion *D. speciosum* seedling. It will be interesting to see this plant when it has grown to a larger specimen.

The hybrids as evidenced by the photos in the September issue of *The Orchadian* were again of a very high standard with six plants receiving awards (see awards this issue). The Champion Hybrid was a beautiful DUNO hybrid, *D.* Duno Marilyn 'Brian' exhibited by Henk van den Berg. This plant was awarded AM/ANOS. Reserve Champion Hybrid was awarded to *D.* Tweetas 'Violet Lip' grown by Grahame Young and Callyn Farrell of Down Under Native Orchids.

Champion Hybrid Seedling was Wayne Perrin's *D.* Dunokayla 'WAP' x *D.* Cosmic Gold 'Sandy'. If you have any unflowered seedlings of these then you certainly have something to look forward to when they flower.

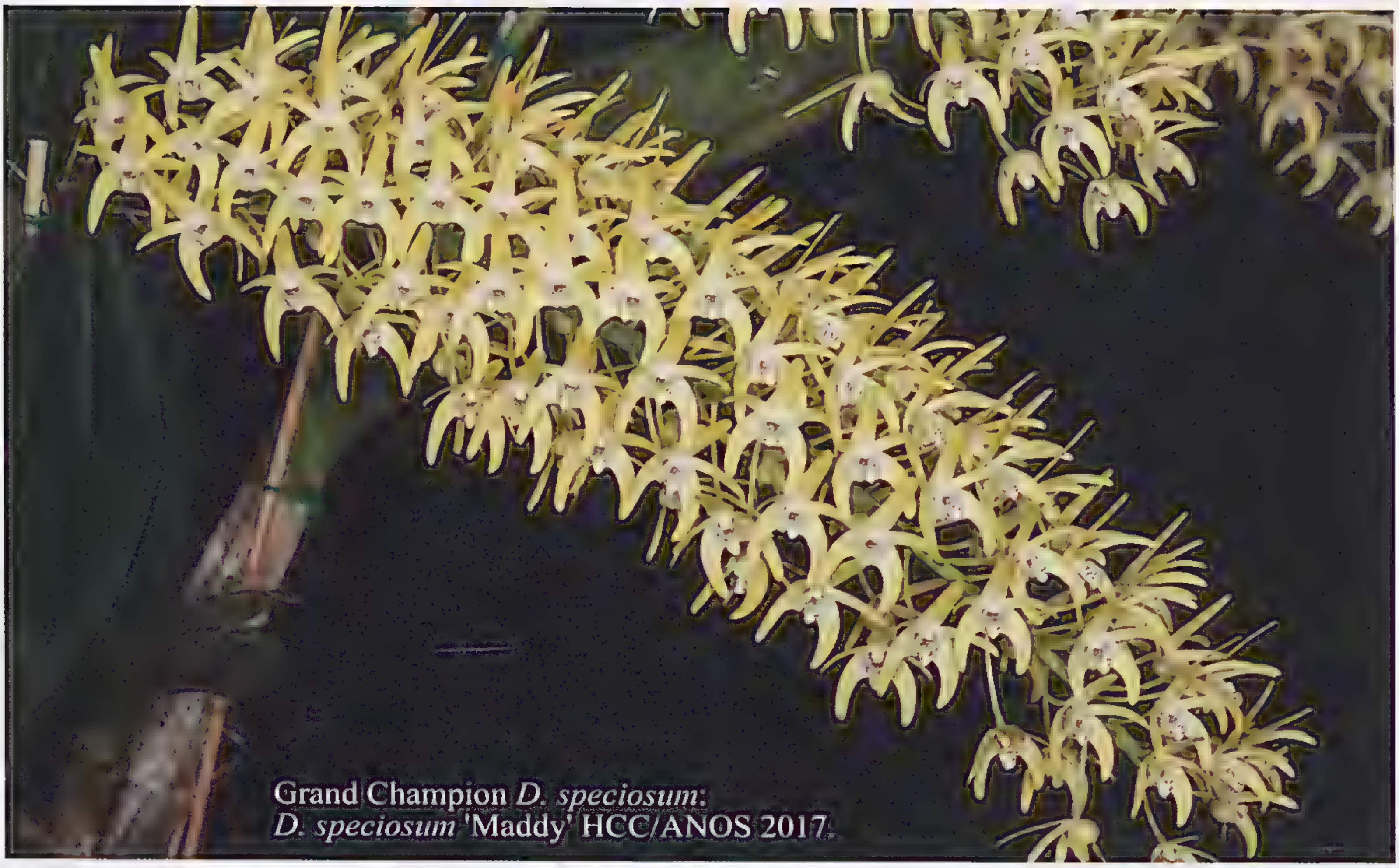
There could have been no more worthy recipient of the most successful exhibitor trophy than Henk van den Berg who thoroughly deserves all the accolades he receives as recognition of the time and effort he puts into the culture and amazing presentation of his plants.

Ted & Winsome Walmsley and ANOS Mid North Coast Group wish to thank all those who attended the 2017 Speciosum Spectacular, and look forward to welcoming you all back to Kempsey in 2018.

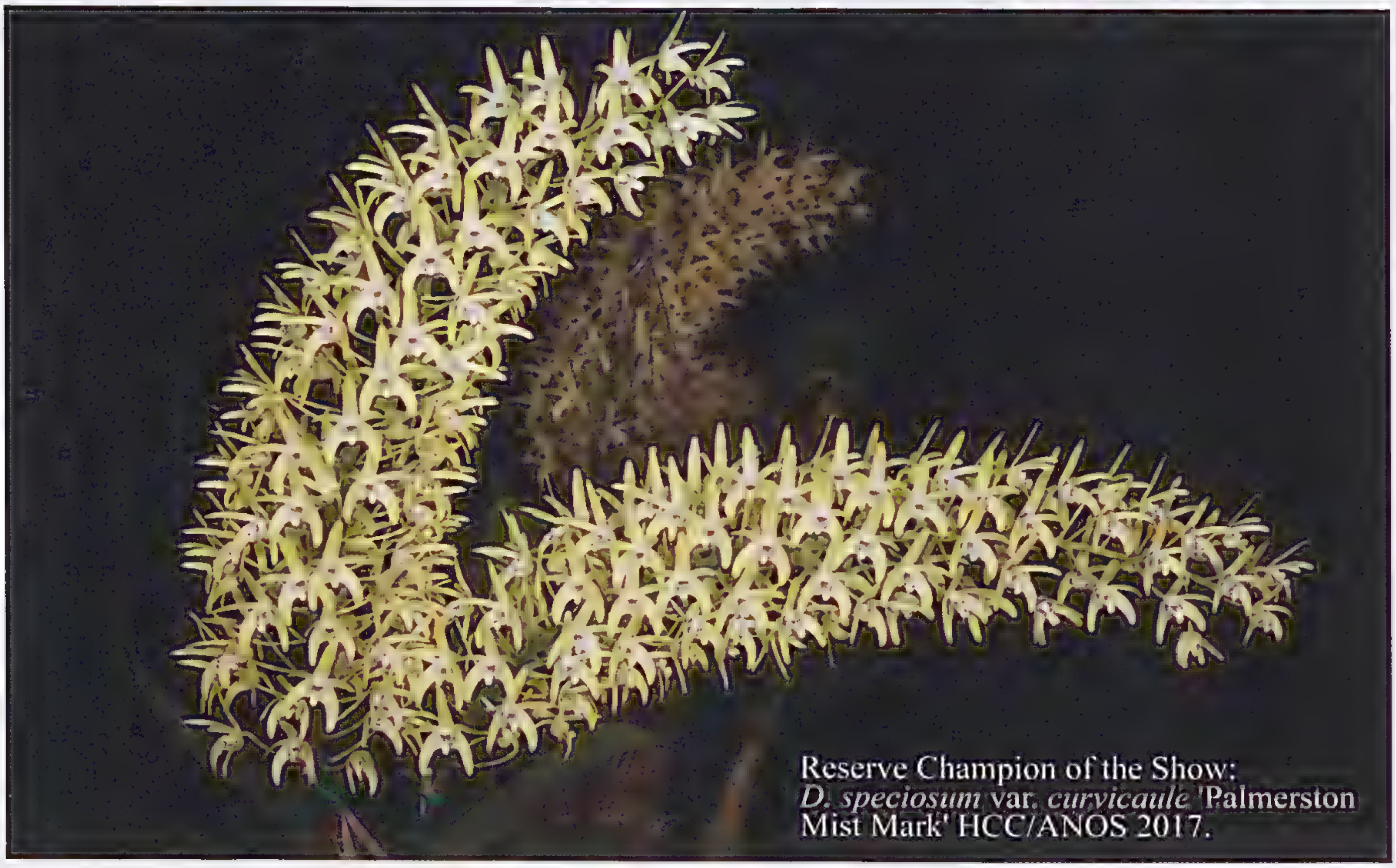
John Zietsch is Secretary of ANOS Mid North Coast Group.

Below: Part of the hybrid benching.

Sponsor Phil Ritchie presents prizes to major winners Ted and Winsome Walmsley.



Grand Champion *D. speciosum*:
D. speciosum 'Maddy' HCC/ANOS 2017.



Reserve Champion of the Show:
D. speciosum var. *curvicaule* 'Palmerston Mist Mark' HCC/ANOS 2017.

Telstra

ANOS Council Meetings proudly Sponsored by Telstra Countrywide

Dendrobiums at the 2017 Townsville Orchid Spectacular

Text and photos Roslyn Capell
capell666@ozemail.com.au

The Tropical Queensland Orchid Council's 52nd annual conference and show was hosted in June 2017 by Townsville Orchid Society, to coincide with that society's 70th birthday celebrations. The event provided an opportunity to see intermediate hybrids and section *Spatulata* hybrids grown in a climate well suited to their culture. Townsville is 471 km due north of the Tropic of Capricorn. I was surprised to learn it has cold snaps that can affect growth and flowering, and that growers take steps to provide protection from cold for their plants to avoid adverse effects. However, the weather during the vast majority of the year obviously suits them well. There were many fine, healthy, multi-growth plants on display, with inflorescences which seemed more numerous and just a bit longer than most plants of this type I have seen in the SE Queensland/NSW Northern Rivers region.

Most species in sect. *Spatulata* occur within the borders of Australia, and in Australasia as defined by the ANOS constitution. One showy species used extensively in hybridising, but which does not occur within Australasia, is *Dendrobium taurinum,* the striking bull-headed *Dendrobium,* which only occurs in the Philippines. Hybrids containing even small doses of this species are not eligible for entry in ANOS shows. Reserve Champion of the Townsville show was one such plant: a very attractive and floriferous magenta-lipped yellow *D.* Joan Laffey 'Mabel', grown and bred by Charlie Truscott. It contains less than 1% *D. taurinum* but that is enough to keep it off the ANOS show bench. There were, however, several ANOS-eligible sect. *Spatulata* hybrids, some also including sect. *Phalaenanthe* species in their background.

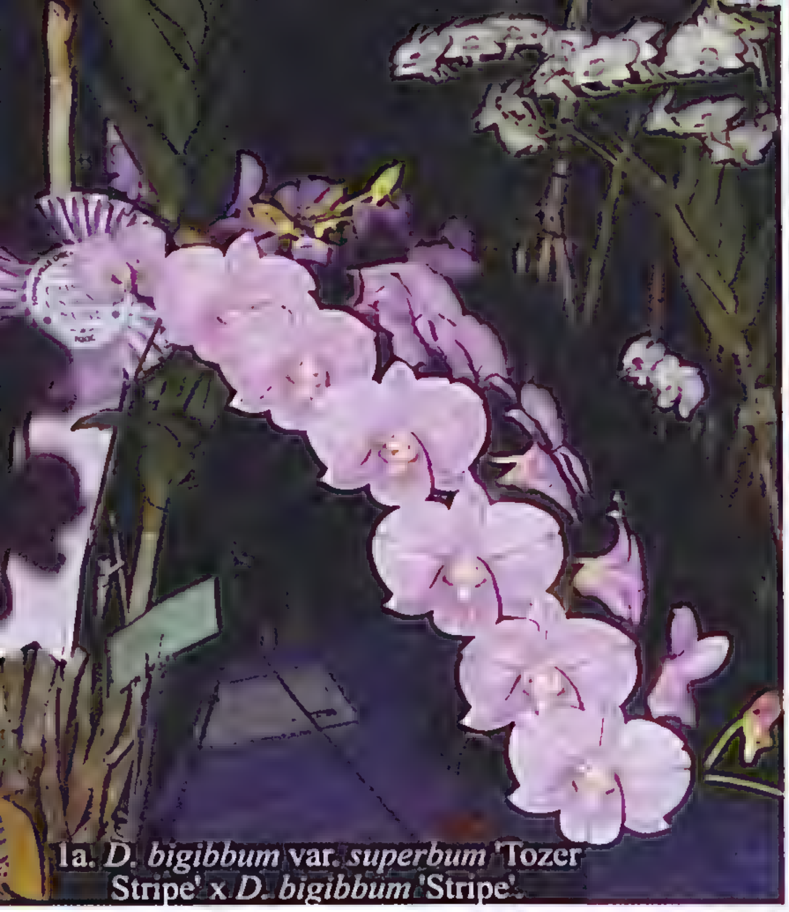
Bernie You drove his well-flowered, clear chartreuse-yellow *D.* Fraser's Canary Twister (*D. schulleri* x *D. canaliculatum*) (Fig. 1) all the way from the Tweed region on the New South Wales far north coast. It was benched in *Dendrobium* Hybrids with Intermediate Shape, and was judged first in its class. Bernie didn't take just this *Dendrobium* up to Townsville, he also managed to fit in his *Cycnodes* Taiwan Gold, which was judged Grand Champion Orchid of the show, and a few other fine plants that also won championship classes. Second in the same class was another Australasian Intermediate Hybrid, *D.* Salak x *D.* Caesar (Fig. 2), with flowers in an appealing combination of pink and cream with golden highlights on the column and labellum. *Dendrobium* Salak is *D. stratiotes* x *D. discolor*. *Dendrobium* Caesar was originally registered as *D. phalaenopsis* x *D. stratiotes. Dendrobium phalaenopsis* var. *schroederianum* is now considered to be a synonym for *D. bigibbum* var. *schroederianum.*

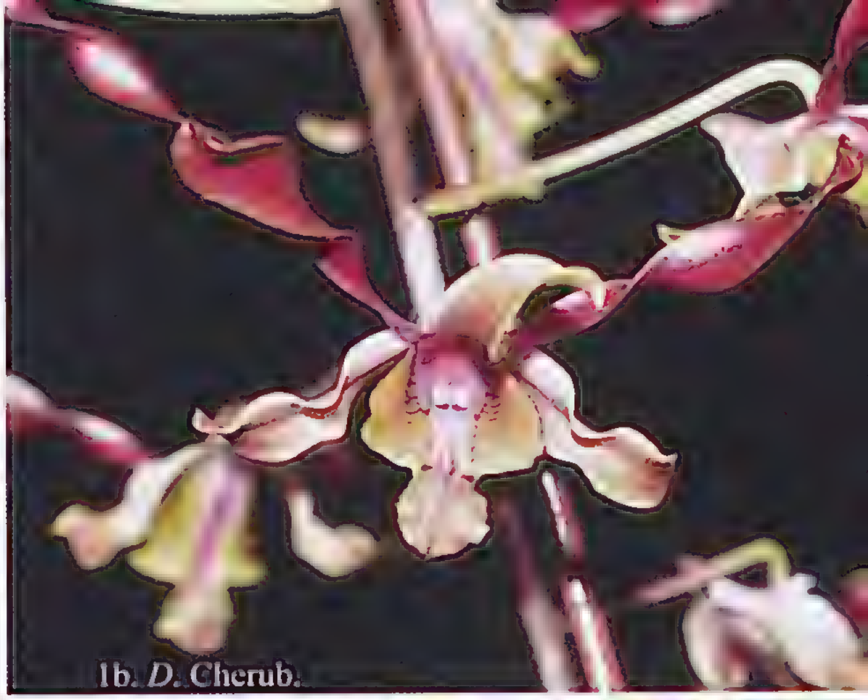
There were two very floriferous Australasian primary hybrids showing strong *D. canaliculatum* influence benched in the class for *Dendrobium* Hybrids with *Spatulata* shape: *D.* Gloucester Charm and *D.* Jaydee Jim (Fig. 1). *Dendrobium* Jaydee Jim is *D. gouldii* x *D. canaliculatum* and this one had flowers in mustard-yellow overlaid with reddish brown. The *D.* Gloucester Charm was well coloured, having strong butter-yellow in the petals and a rich heliotrope labellum.

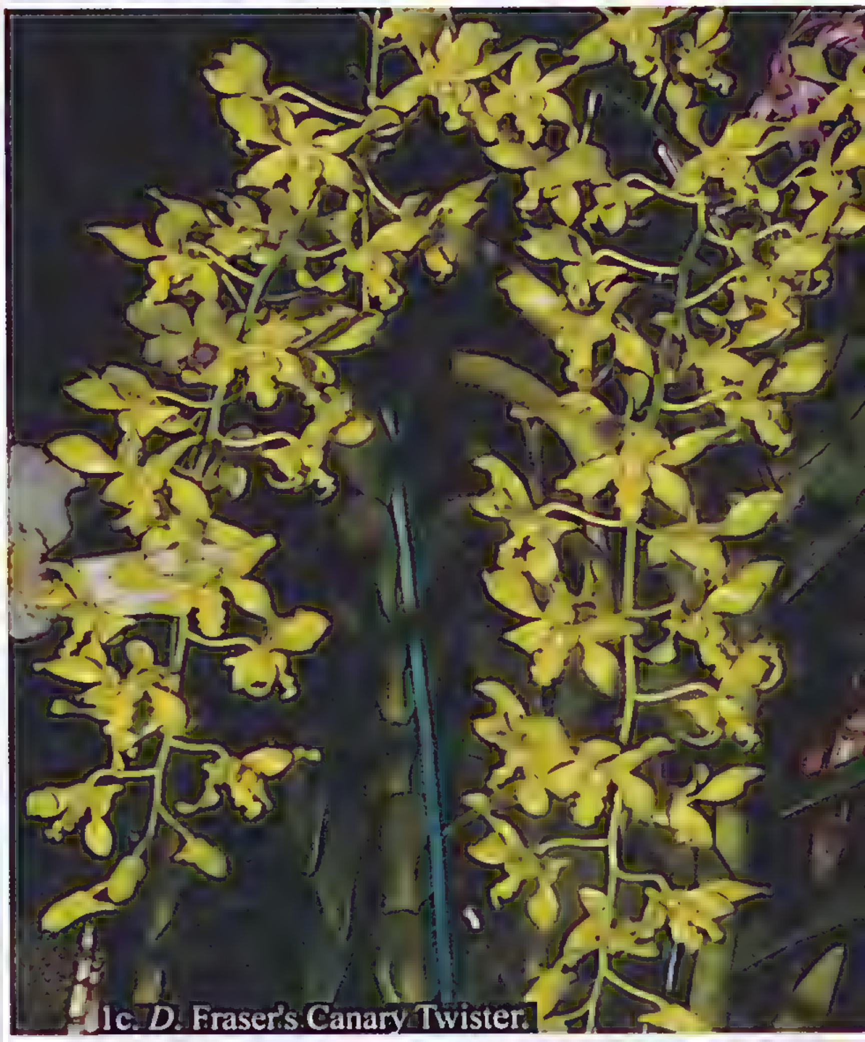
Champion Australian Native was a line-bred striped form of *Dendrobium bigibbum* var. *superbum*, grown by R. Nicholls: *D. bigibbum* var. *superbum* 'Tozer Stripe' x *D. bigibbum* 'Stripe' (Fig. 1).

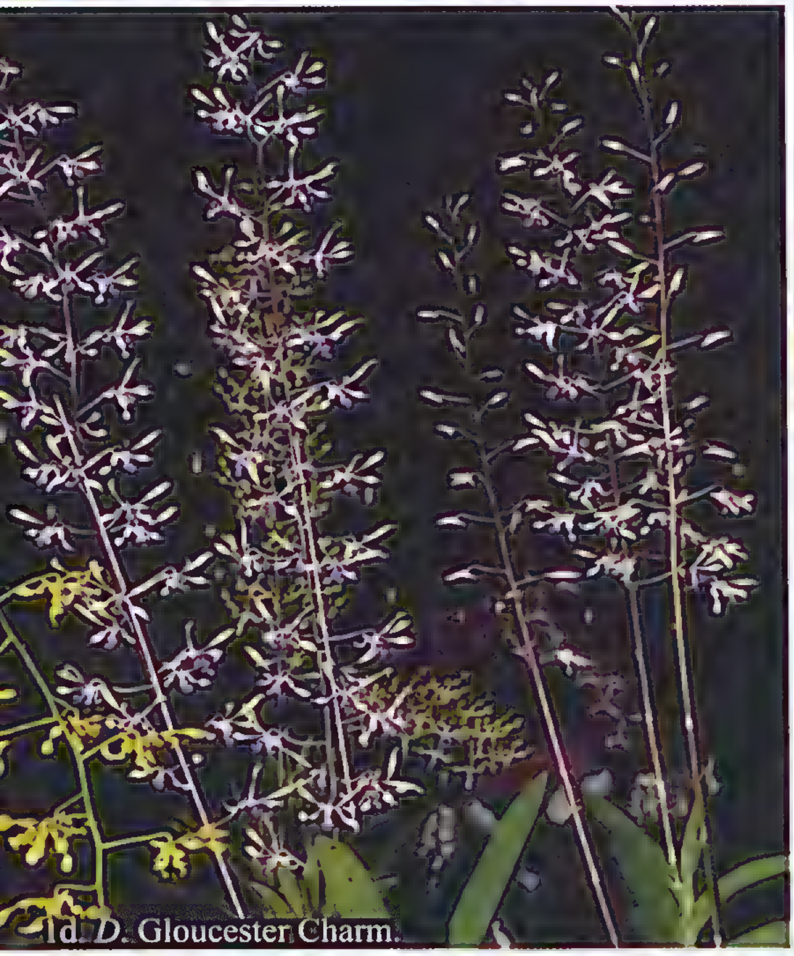
There was a very attractive clear pink *D.* Mini Pearl (*D. bigibbum* x *D. canaliculatum*) (Fig. 2). Strictly speaking, we should refer to *D.* Mini Pearl as *D.* Rosy Tips since the hybrid between *D. phalaenopsis* and *D. canaliculatum* was registered under that name 14 years earlier than *D.* Mini Pearl was registered, but this plant was labelled *D.* Mini Pearl so I am going to call it *D.* Mini Pearl. The label indicated that the seed parent was *D. bigibbum* var. *bigibbum.*

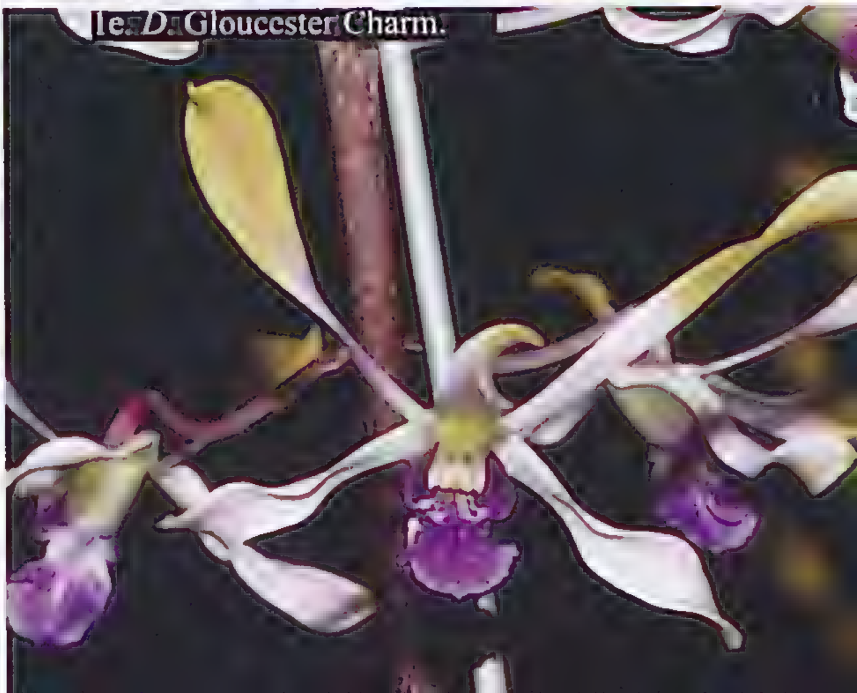
Dendrobium Penny Flere is an Australian hybrid I had not seen before. The flower was deep cream with pink veins. The label noted its parentage as *D. superbiens* x *D. trilamellatum*. OrchidWiz initially records the parentage of *D.* Penny Flere as *D. superbiens* x *D. semifuscum*, reflecting the information provided in the Royal Horticultural Society's International Orchid Register. However

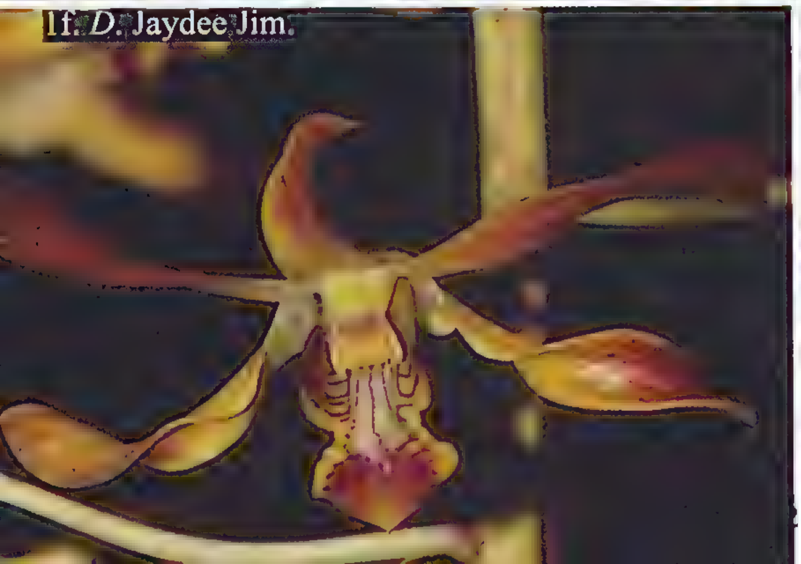

1a. *D. bigibbum* var. *superbum* 'Tozer Stripe' x *D. bigibbum* 'Stripe'.

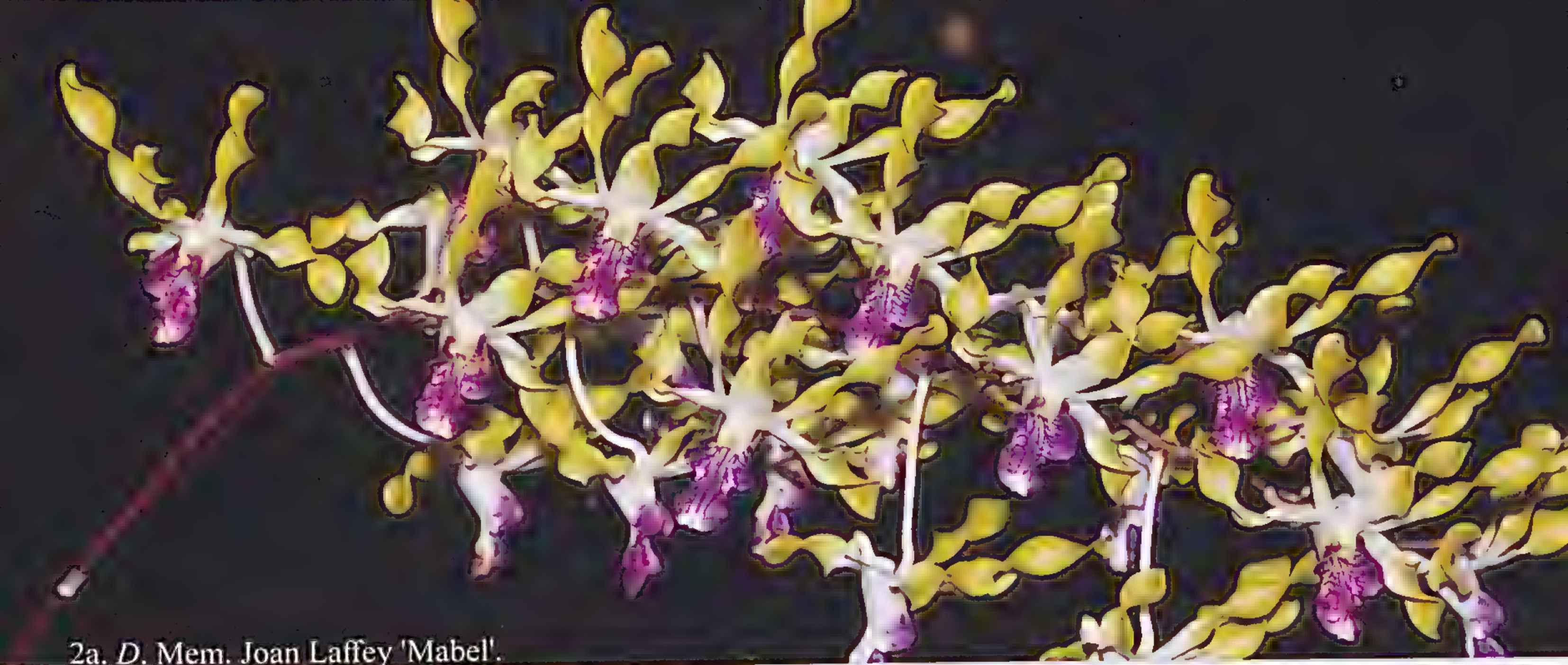

1b. *D.* Cherub.

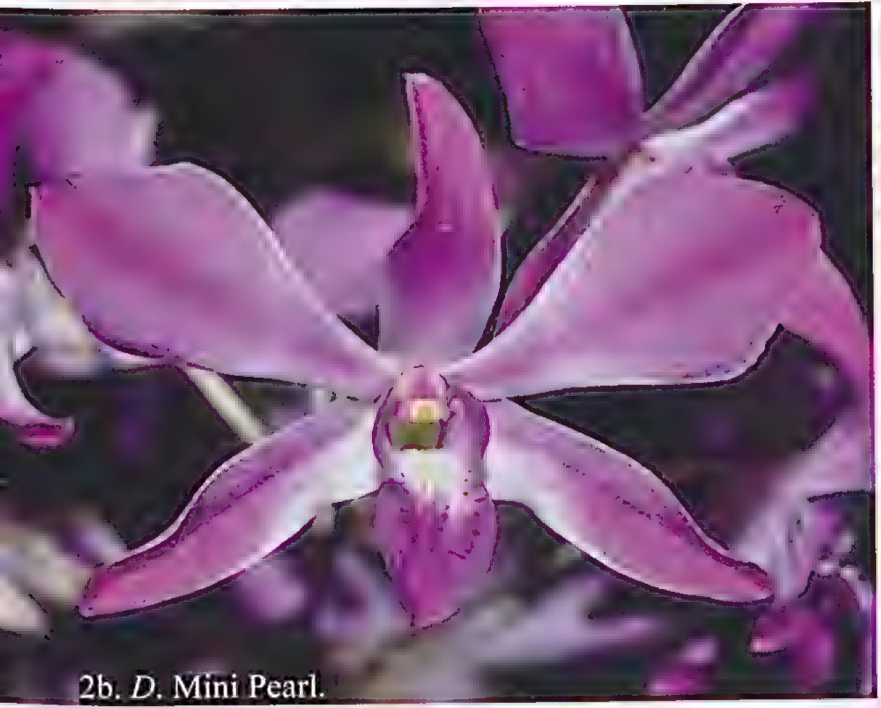

1c. *D.* Fraser's Canary Twister.

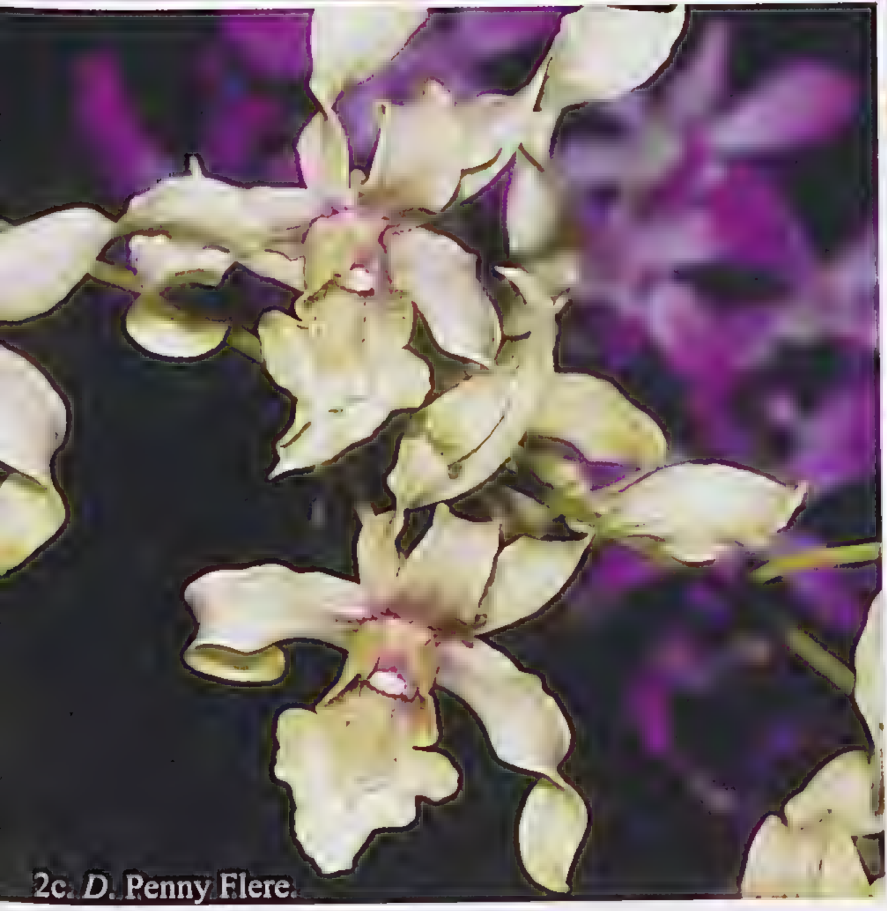

1d. *D.* Gloucester Charm.

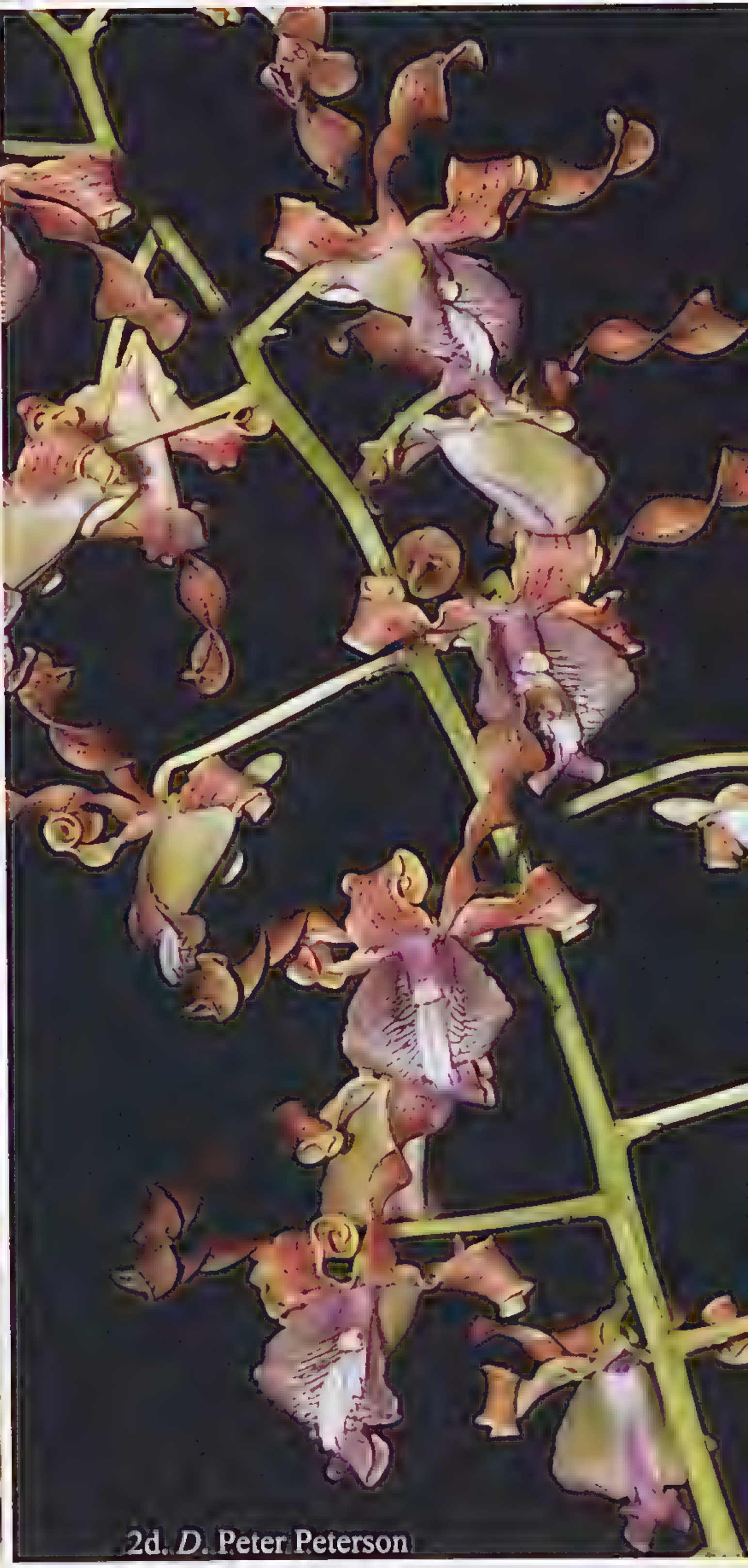

1e. *D.* Gloucester Charm.


1f. *D.* Jaydee Jim.


2a. *D.* Mem. Joan Laffey 'Mabel'.


2b. *D.* Mini Pearl.


2c. *D.* Penny Flere.

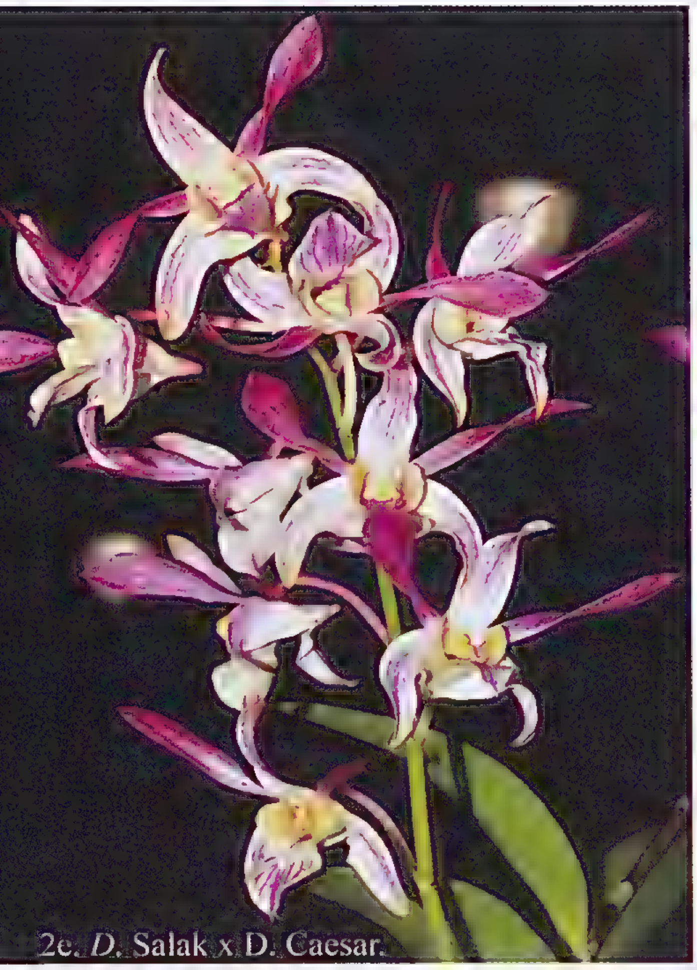

2d. *D.* Peter Peterson

the OrchidWiz entry goes on to state that *D. superbiens* is *D.* × *superbiens* and that *D. semifuscum* is *D. trilamellatum*, which accords with the information contained in the World Checklist of Selected Plant Families – a database maintained at Kew Royal Botanic Gardens and compiled by a panel of international experts. The World Checklist accepts *D.* × *superbiens* as the name for the natural hybrid between *D. bigibbum* and *D. discolor*. As a natural hybrid, the name should be written with a multiplication sign before the collective (grex) epithet as the important multiplication sign denotes it to be a natural hybrid and not a species. It is hard enough for enthusiasts to keep on top of nomenclature without authorities publishing conflicting and confusing information.

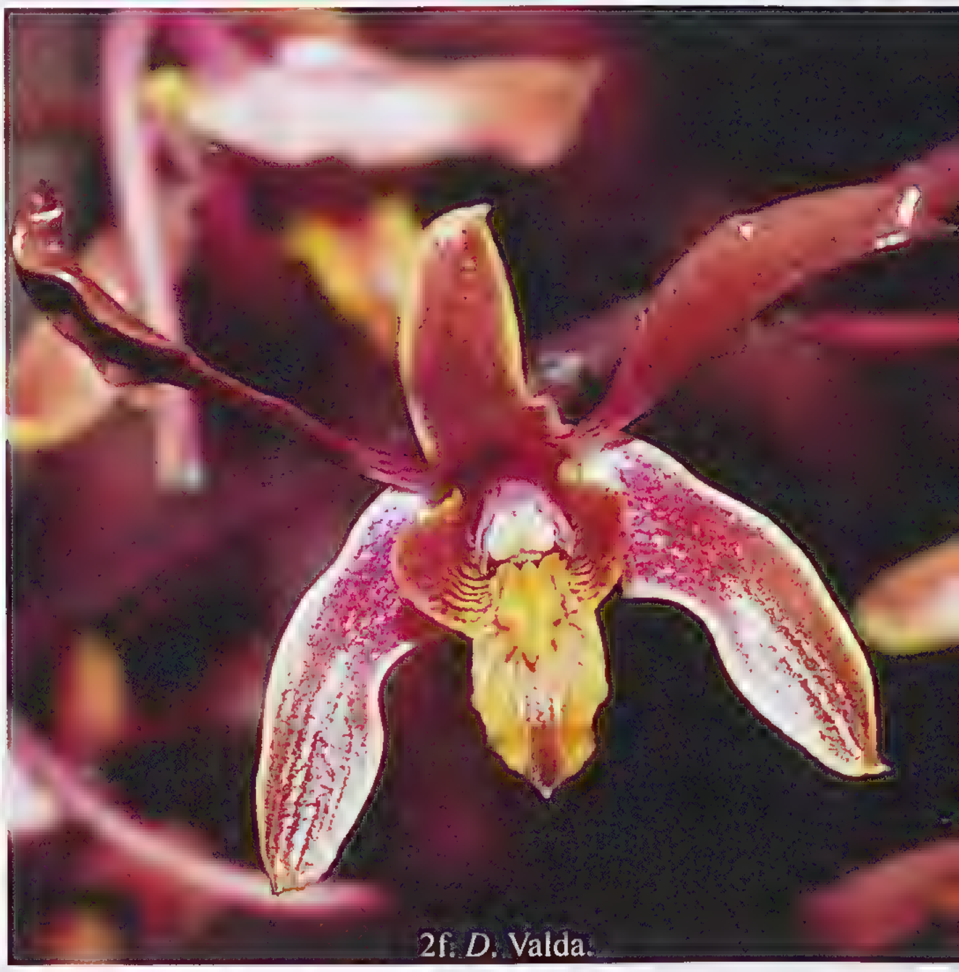
Another interesting Australian primary hybrid was a tall plant of *D.* Peter Peterson (*D. discolor* x *D. nindii*)(Fig. 2), with an inflorescence bearing about 25 chunky flowers with mushroom-coloured tepals and a large grey-mauve labellum favouring the *D. nindii* parent in shape and size, and with a matching grey-mauve column. Other Australian hybrids with *D. discolor* in their background were well-flowered exhibits of *D.* Valda (*D. discolor* x *D. carronii*) (Fig. 2), and *D.* Cherub (*D.* Peter Peterson x *D. carronii*)(Fig. 1). Both were similarly coloured pinky-caramel with yellow on the lip, however both hybrids bear witness to the fact that the diminutive *D. carronii* is dominant in plant size and greatly, and very conveniently for the grower, reduces plant size in its hybrids with taller species. *Dendrobium carronii* has conical pseudobulbs which are only about 50 mm tall, topped by a few leaves up to 100 mm long, in striking contrast to the tall cane-like pseudobulbs of *D. discolor* and *D. nindii,* which can be skyscrapers of plants up to 3 m tall or even more.

Some sect. *Spatulata* species and hybrids can be grown successfully without artificial heat in winter as far south as the New South Wales Northern Rivers area. Many do very well provided they are given suitable accommodation in a protected, sunny spot, with a solid roof to keep out the winter rain and covering on the walls to protect from cold winds and to retain the warmth of the day. Some of the touchier species from the humid tropical lowlands, such as *D. nindii* and *D. lasianthera*, are less tolerant of conditions which vary much from their habitat, and they and their hybrids are encountered more frequently the further north one travels. The Tropical Queensland Orchid Council's annual conferences provide an excellent opportunity for southern visitors to see and enjoy these orchids.

Roslyn Capell is ANOS Inc. Conservation Officer.



2e. *D.* Salak x D. Caesar.



2f. *D.* Valda.

Dendrobium speciosum 'Clair de Lune' FCC-ACC/ANOS 2017 (NSW)

Tony Blewitt
kirikaikaikiri@yahoo.com.au

After flowering *D. speciosum* var. *curvicaule* 'Daylight Moon' FCC/AOC 2001, I recognised it to be a superior plant, and decided to use it in my *D. speciosum* breeding program. I made many intervarietal crosses and also bred it with other *D. speciosum* var. *curvicaule*. What I wanted to do was self it and I didn't have much success - every self pollination fell off.

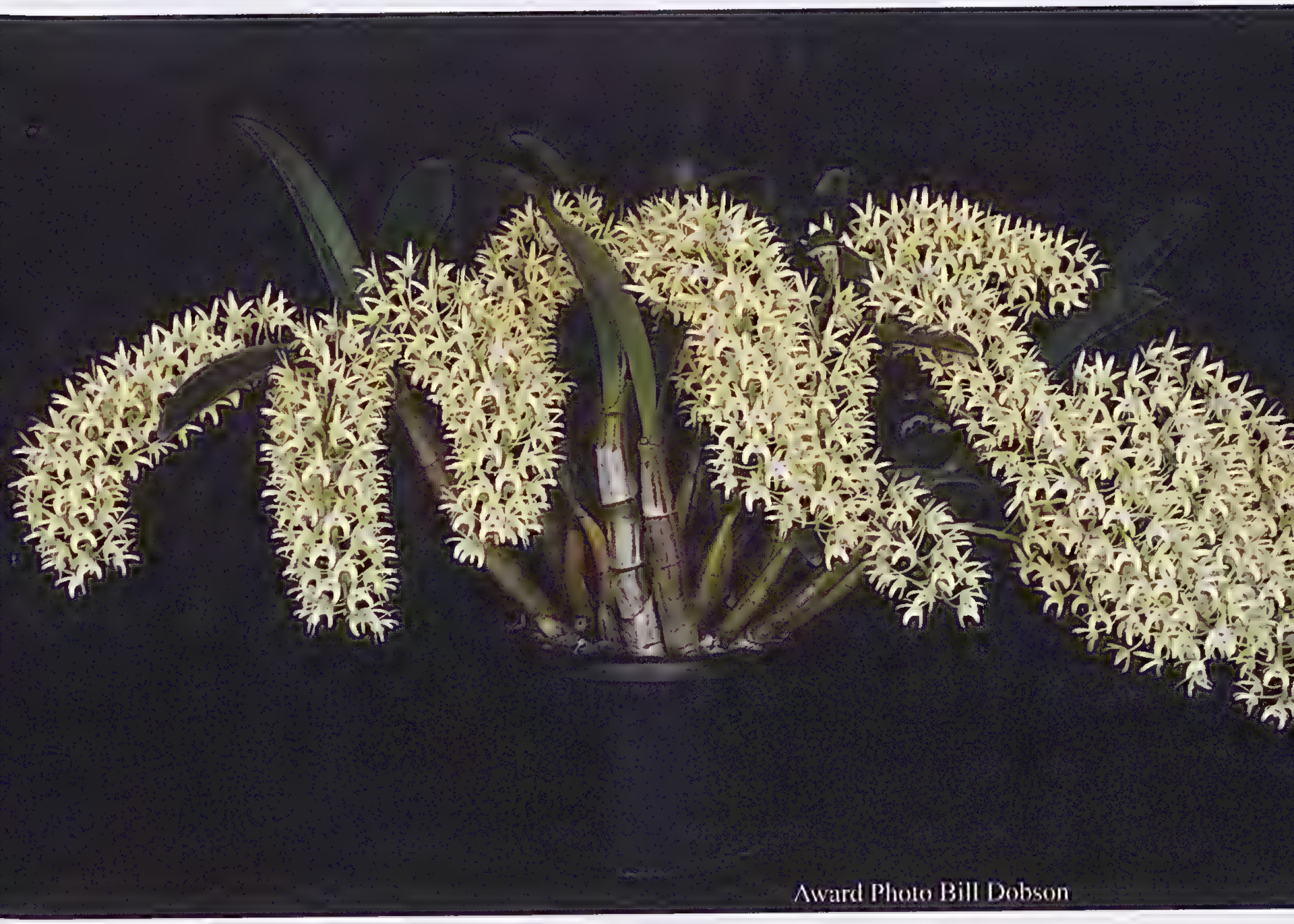
In 1997 I decided to try a different approach. I took my orchid out of the orchid house and let the natural pollinators pollinate my orchid for me. Every pollinating insect visited my plant, it was a flower-destroying free for all, from European honey bees to our own hover flies, they all came - attracted to the floral display.

At the end of this creative destruction ten days later, I was left with one developing seed capsule.

This had to be a selfing, as I had eliminated any chance of other *Dendrobium* pollen being used to pollinate my orchid.

I grew many of these plants to flowering size. When they flowered, the characteristics confirmed they were indeed selfings of 'Daylight Moon', all showing the excellent qualities of the parent. When 'Clair de Lune' first flowered in 2007 it showed potential to be an exceptional plant and gave me the chance to fulfil one of my goals - of obtaining a First Class Certificate award with a plant I had bred.

The plant was grown under my standard conditions in a bush house and I allowed the main plant to develop fully to large specimen size, waiting for the right season for mass flowering. This year it had more than 25 leafed canes about 42 cm long, with 18 racemes and excellent, unblemished flowers. It received 90.3 points for the FCC/ANOS from the judging panel in the first week of September, as well as an FCC level cultural award.



Award Photo Bill Dobson

ANOS Warringah Group Spring Show 2017

Text and photos Bill Dobson
bdobson@optusnet.com.au

This year marked the group's 40th Annual Spring Show and it was a good one. The show has been in the same hall at Forestville for over twenty years now, and although the cost is substantial the hall is perfect for staging our show.

This year the seasons have been topsy-turvy with a lot of species flowering early and some not flowering at all. However most classes were filled, with the exception of terrestrials and perhaps our members will address this in the future as some terrestrials are being exhibited at our monthly meetings.

The members always support this show even before it opens with advertising banners erected and the tables and stands being set up before plants arrive for benching and sale.

There are over 40 classes to suit all growers with species and hybrids catered for evenly. This year we created two new classes, one for *Dendrobium gracilicaule*, as we were having many entries in the past and thought that this would allow other section *Dendrocoryne* such as *Dendrobium adae, D. aemulum, D. falcorostrum, D. fleckeri, D. jonesii, D. moorei*, to shine through, which they did. There was also a section for *D. tetragonum*. This was extremely popular, and allowed members and the public to appreciate the nuances of the different varieties of this wonderful species.

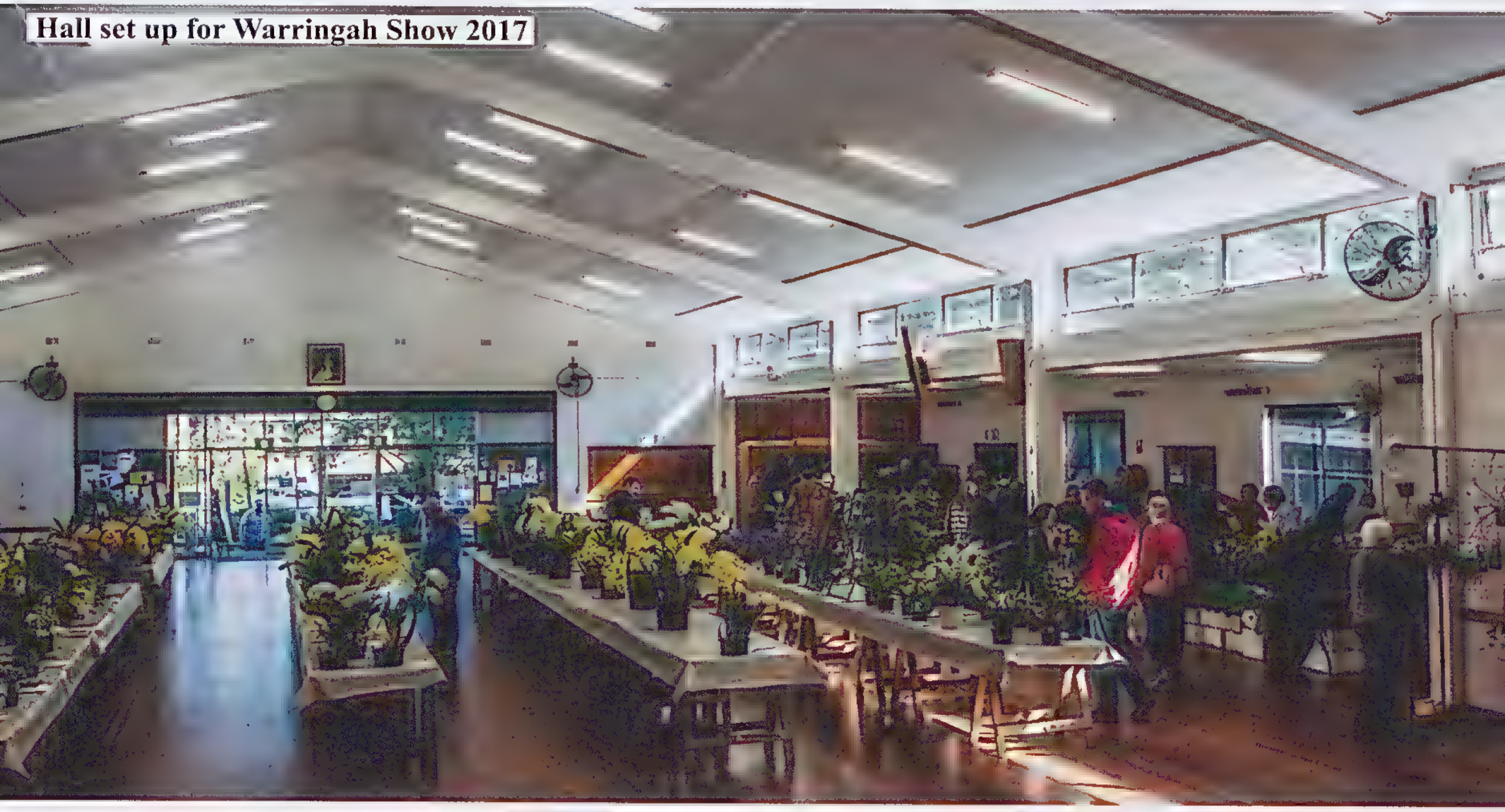
There were many representatives in the *Dendrobium speciosum* sections with some fine examples of line breeding. The section that has picked up over the years is the terete-leaved *Rhizobium* section and it was no surprise to see that one, grown by David Hemmings, won Grand Champion of the Show. It was the same cross, *D. striolatum* 'Brian's Ruffles' x *D. fuliginosum,* which won Grand Champion in 2010…..a first for a terete at our show.

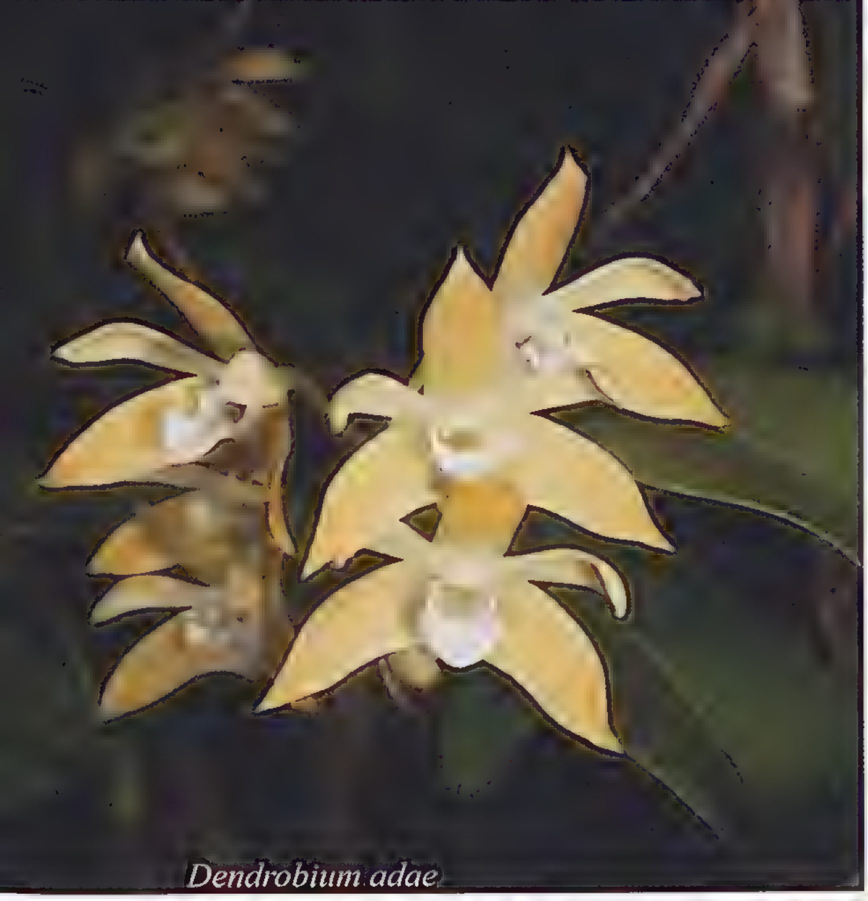
The show is a hit with the native orchid growers of Sydney, and despite having an election on the Saturday with a polling booth beside us and parking at a minimum, we had good numbers through the door. Thanks to the judges who gave their time to come a long way at night to judge, and to those members who acted as 'runners' and recorders. Thanks also to the members of the society who assisted in running the show.

Grand Champion *D.* Australian Ginger 'Dennistone Fairy Dancer' HCC/ANOS 2017 Award No. 295 (David Hemmings)

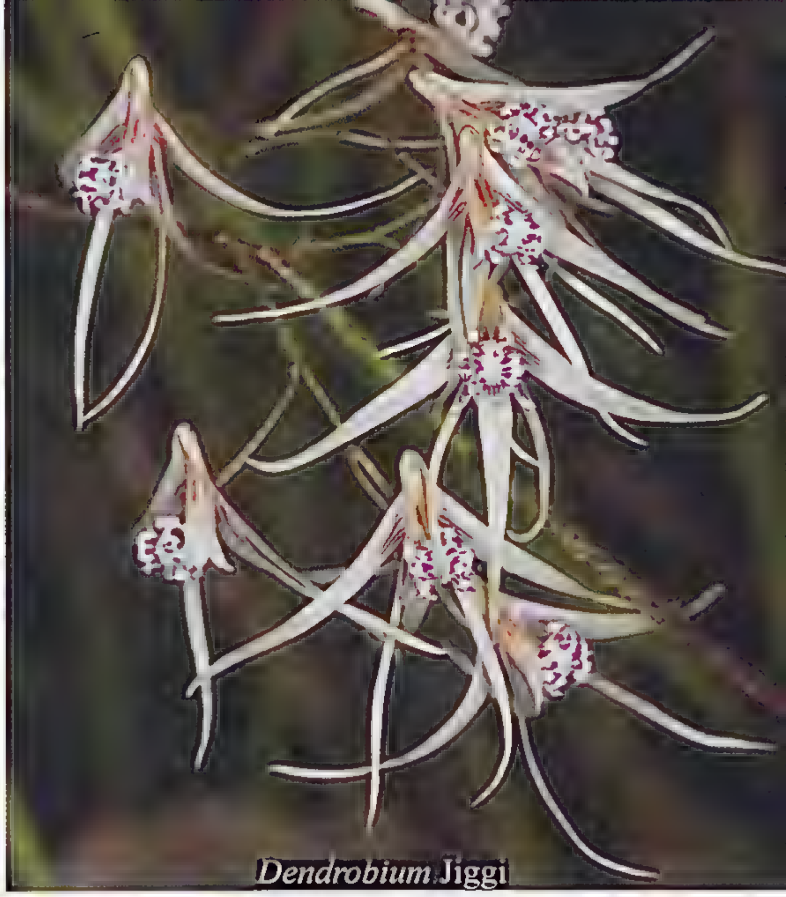
Champion Australian Native Epiphyte Species *D. speciosum* var. *grandiflorum* 'Lemon Ice' (L & B Dobson)

Hall set up for Warringah Show 2017

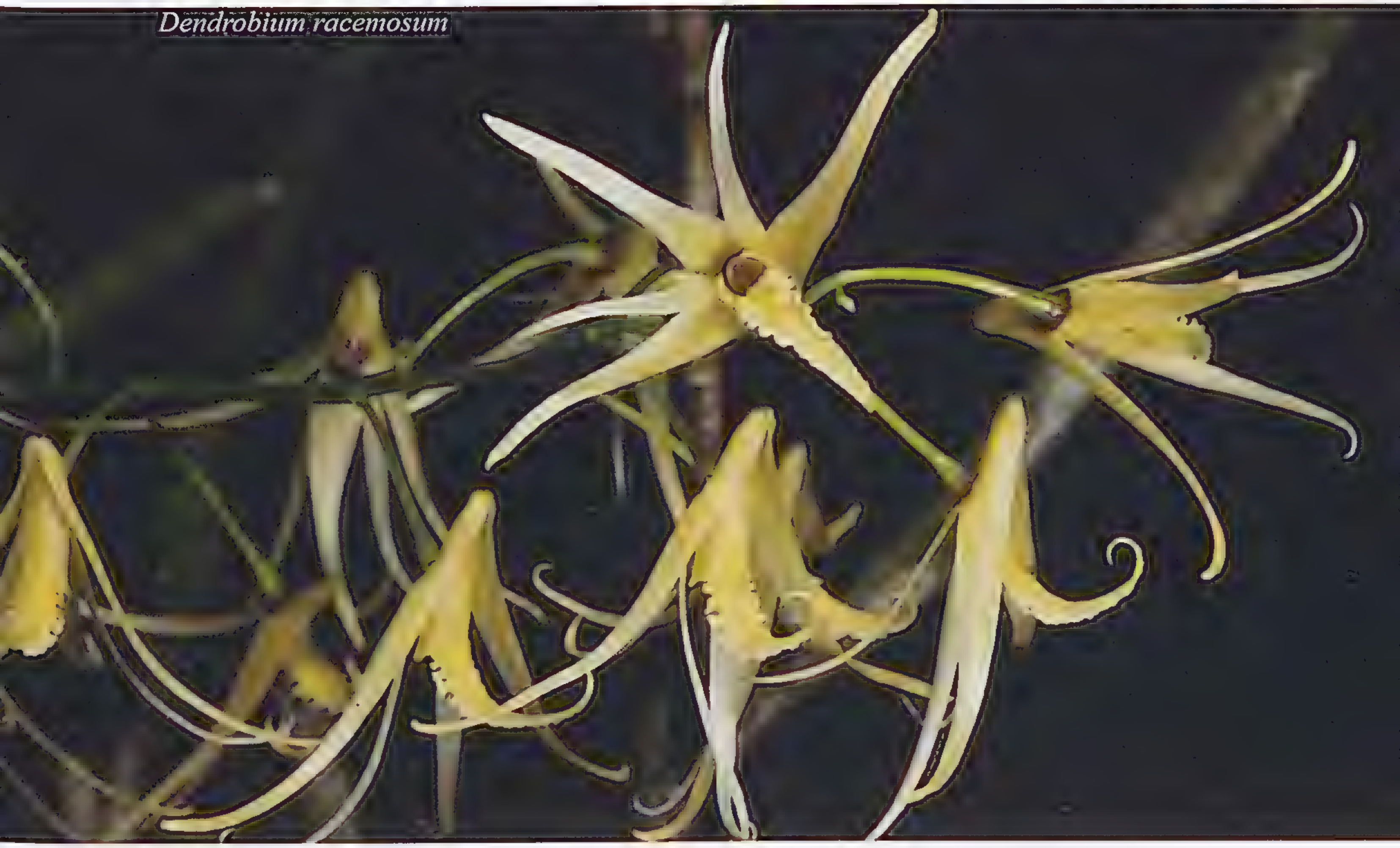




Dendrobium adae



Dendrobium Jiggi



Dendrobium racemosum

Champion Australian Native Terrestrial Species *Pterostylis erecta* (David Hemmings)

Champion Australian Native Hybrid
D. (Yondi x Graeme Banks) x *D. speciosum* 'Daylight Moon' (David Hemmings)

Champion Australasian Species or Hybrid
D. Australian Ginger 'Dennistone Fairy Dancer' (David Hemmings)

Champion Specimen Native Species
D. pugioniforme (L & B Dobson)

Champion Specimen Native Hybrid
D. Andrew Person (David Hemmings)

Bill Dobson is President and Show Marshal of the ANOS Warringah Group

Book Review: *Conservation Methods for Terrestrial Orchids* by N.D. Swarts & K.W. Dixon

Peter B. Adams

The science of terrestrial orchid pollination has moved forward spectacularly in the past 25 years with the development of new techniques and information about the interaction between orchids and their insect vectors. There is a vast amount of work and uncertainty in mounting and completing a project which leads to the successful introduction of a single species back to its natural habitat.

This attractively produced book by two senior authors in the field, Nigel Swarts and Kingsley Dixon, meets the need for a succinct account of the major areas of work in the field. Nigel is a Research Fellow at the Tasmanian Institute of Agriculture at the University of Tasmania, and Kingsley, who has been based in Western Australia, is co-chair of the Orchid Specialist Group of the IUCN, and involved with international conservation committees.

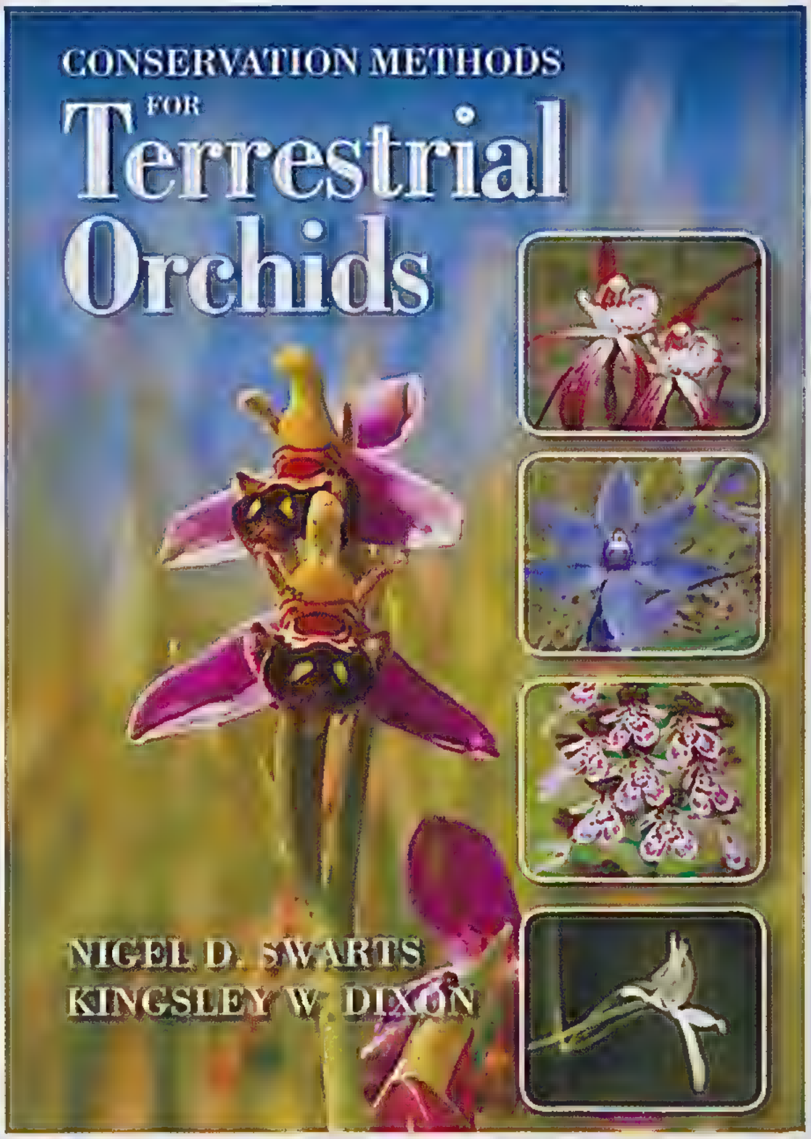
Pollination biologists will find it an essential reference, citizen scientists who assist them with monitoring and collection of information will learn the basic technical aspects and principles of pollination biology, and orchid enthusiasts, conservationists and students will expand their horizons. It includes many case studies of particular orchids from all over the world. The prime focus is on conservation of terrestrial orchids, which are facing the greatest threats to survival, and applying methods to overcome difficulties in propagation, enabling the augmentation of natural populations under threat.

The introduction covers orchid conservation basics, and the next nine chapters cover in situ monitoring, demographic study, instruments for conservation, methods for culture and storage of mycorrhizal fungi, orchid seed germination techniques, assessment of mycorrhiza in soil, culture of propagated plants for conservation, translocating plants to restoration sites, orchid pollination, genetic and molecular techniques used in conservation, and storage of orchid seed and mycorrhiza.

The outstanding features of the book include high quality photographs and illustrations, concise outlines of methods and techniques involving a wide range of species, and an easy to read and understand approach that conveys the enthusiasm and experience of the authors.

The hard cover is a work of art, and is strongly bound with no dust jacket. Printed by J. Ross Published in June 2017, it contains 240 pages, is 260 mm x 185 mm and retails for $69.95 Australian. Not deliberately intending to test its robustness in the field, I accidentally dropped my copy and no damage resulted. The book is not too large to fit in a back pack and is strongly recommended as an essential item for conservation activities in the field.

"The need for orchid conservation is paramount if we are to leave to future generations the rich and wildly fascinating legacy we all enjoy today" (p.4).



Vale Ruth Rudkin 13/4/1917 – 10/9/2017

Irene Chalmers and Roslyn Capell

Ruth passed away peacefully on 10th September 2017 at the age of 100. She was a long-standing member of the Australasian Native Orchid Society and had a passion for our native orchids. Ruth joined ANOS Warringah Group in the mid-1970s and later became a member of ANOS Council where she served for some years. Ruth was made a life member of ANOS Inc. in 2002 for her work and travel promoting Australian native orchids.

Ruth was born in Perth and, in an article published in the *Australian Orchid Review* in 1990, recorded that her earliest memories of the bush outside her home in South Perth were of looking for orchids. The orchids she grew up with included the colourful *Diuris* and Cowslip orchids and the spectacular Spider caladenias and Pink and Blue Enamel orchids. After she and her husband moved to Victoria, they and their three small children went with local Field Naturalists, by public transport and foot, to see a patch of greenhoods. She wrote of her disappointment at seeing these "little insignificant flowers" compared to the orchids she remembered from Western Australia. Ruth eventually came to appreciate the little eastern Greenhoods, but on the field trip during the First International Orchid Conservation Congress in Perth in 2001 she took great delight in pointing out her treasured Cowslip orchids (*Caladenia flava*) and other western favourites to her fellow registrants from the eastern states, and shared her memories of seeing fields of them in her youth.

Ruth Baxter studied chemistry and physics at the University of Western Australia, as did her future husband, Arthur Rudkin. Ruth and Arthur married and had three daughters while they lived in Perth, and a fourth daughter after moving to Melbourne. In Melbourne, Ruth taught at a private girls' school. She and her family later moved to Sydney, where she undertook the further course required in order to teach in public high schools. She then obtained a position teaching science at North Sydney Girls' High School and, some years later, at Willoughby Girls' High.

Ruth's interest in orchids was rekindled when she received a gift of a plant of *Dendrobium kingianum*. She joined North Shore Orchid Society and then found her way to ANOS Warringah Group. By now she was again interested in native terrestrial orchids, and she brought a science teacher's knowledge and curiosity to her enjoyment of these orchids.

Ruth liked to travel and she saw a lot of the world. Her enjoyment of travel continued into her 70s and 80s when she made trips to China, Papua New Guinea, South Africa and North America, including attendance at world orchid conferences. She made many contacts at those conferences and the Australian conferences she attended, and continued to correspond with them about orchid science, and probably other subjects we do not know about, after her return home. Ruth's interests were not limited to orchids; she was also keenly interested in history, politics, music, and meteorology. She also taught computer skills to senior citizens, who were often younger than her!

Orchid conservation was important to Ruth and she pressed ANOS to have a role in the First International Orchid Conservation Congress. With Alan Dash, Peter Eygelshoven and Russell Wales, Ruth prepared a poster presentation on the role of ANOS Groups in New South Wales in orchid conservation. The series of three posters spoke of field trips, preserving habitats, and educating group members and the public about our native orchid heritage, and Ruth enthusiastically discussed these posters and issues at the Congress.

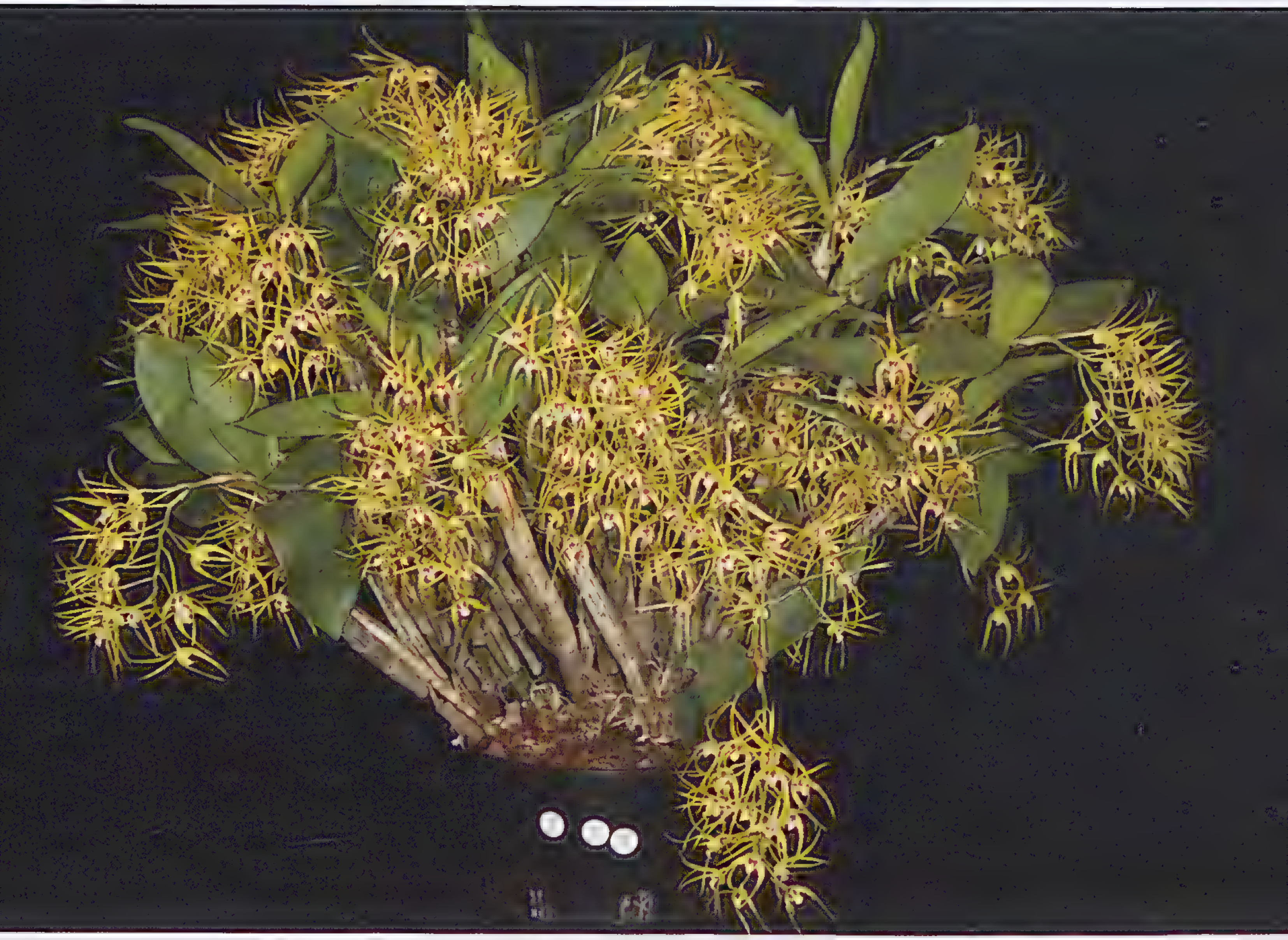
Ruth undertook the ANOS judging course and was promoted to ANOS Judge in 1990, serving the ANOS NSW panel in her usual though manner, always helpful and a credit to the panel.

Ruth served on the Ira Butler Trophy Committee as its secretary from about 1984 and on her retirement from that role in 1999 the Committee presented her with a plaque acknowledging her service and promotion of native orchids. Setting up of the Ira Butler website was made easier by the full and accurate minutes and notes that Ruth kept as secretary.

Ruth wrote for *The Orchadian* and other orchid journals. She wrote show reports, accounts of field trips, and articles which touched on a range of subjects including orchid roots, the history of *Dendrobium kingianum*, the life of R. D. FitzGerald, ANOS going onto the web, Ira Butler's life and breeding work, the migration and dispersal of *Dendrobium*, orchid conservation and Rudolf Schlechter. Following the international conference celebrating Robert Brown's time in NSW and his contribution to science, held in Sydney in 2002, Ruth wrote of Brown and his discoveries. She also authored many articles for orchid society bulletins.

The photograph of Ruth accompanying this tribute is from a group photo taken by Bill Dobson during a field trip to Mount Wilson in early 2006, when Ruth was a spritely 88 year old. She always enjoyed field trips and set a cracking pace walking through the bush. When age finally caught up with her and limited her ability to go on walks and get to meetings, she still kept in touch with friends on Facebook.

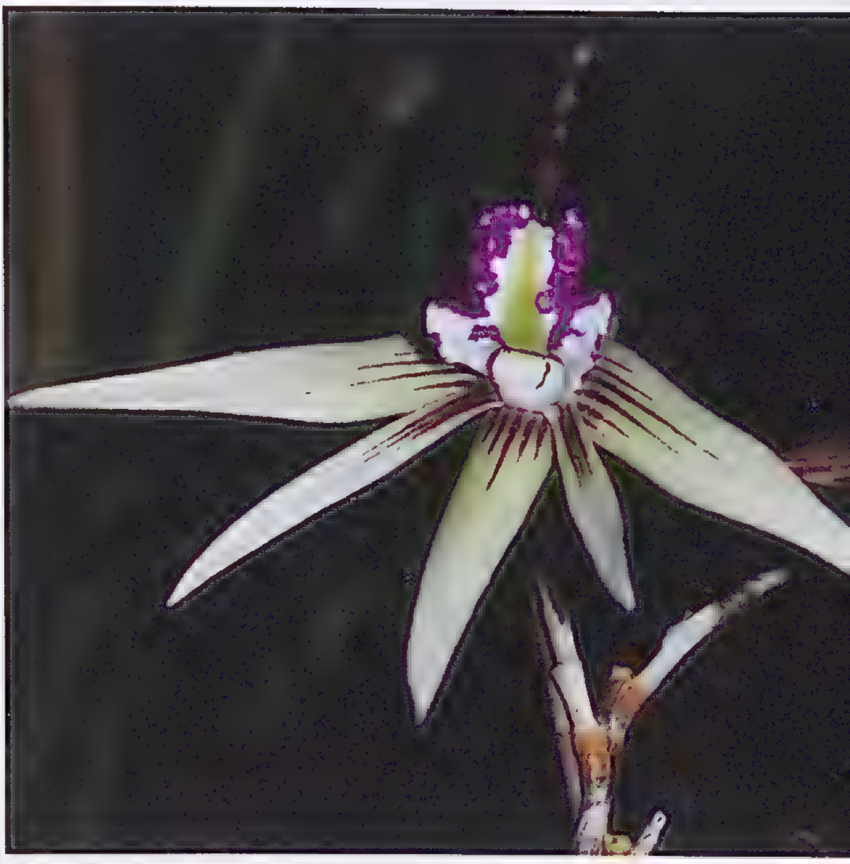
Those who were fortunate enough to know Ruth will fondly remember her infectious enthusiasm for native orchids, her open and friendly manner, and her zest for life generally.



Dendrobium Hilda Poxon 'Freda' ACC/ANOS 2017 (NSW), owner Henk van den Berg. Photo Bill Dobson. See award details page 91.

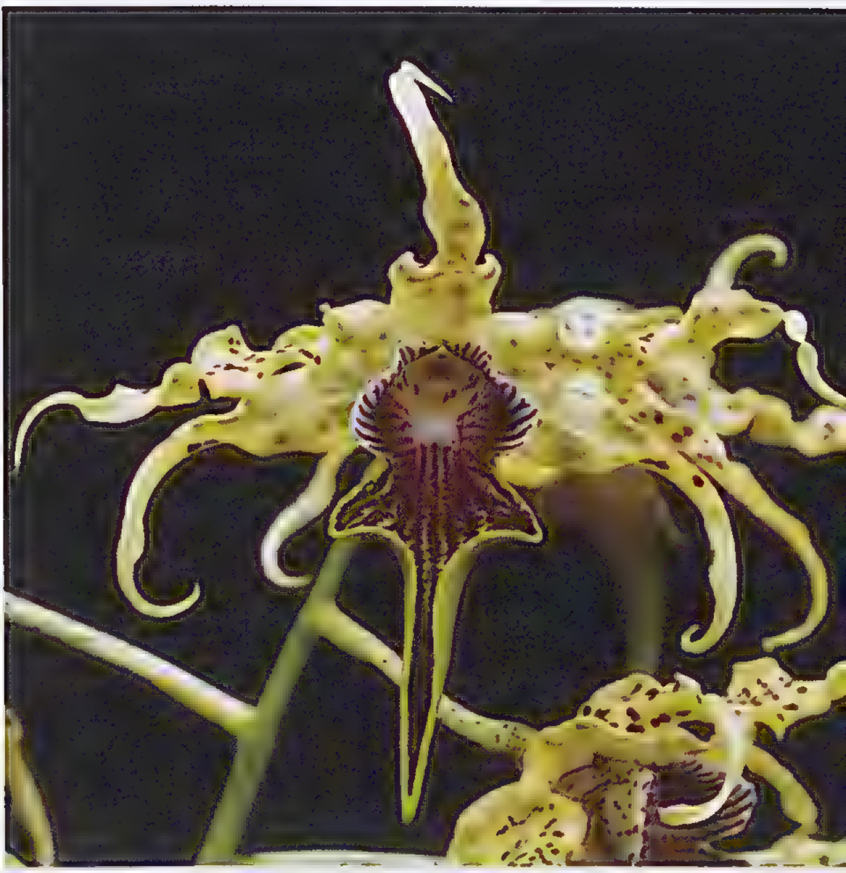
#270 - 271 *Dendrobium schoeninum* 'Trish' HCC-ACC/ANOS 2017 (NSW)

Points	77.0 (ACC 80.7)
Owner	Emil Dallmer
Date	9 Sep. 2017
Event	
Photos by	
Number of:	
flowers	42 & 42 buds
inflorescences	84
Measurements(mm):	
flower across	35
vertical	26
petal	16.5L 3.2W
sepal	24L 4.4W
dorsal	18L 3.5W
labellum	20L 7W
inflorescence length	96
Detailed avge points:	
shape(25)	19.83
colour(20)	15.67
size(15)	10.42
substance/texture(10)	7.42
floriferousness(15)	12.33
habit/attractive(15)	11.33



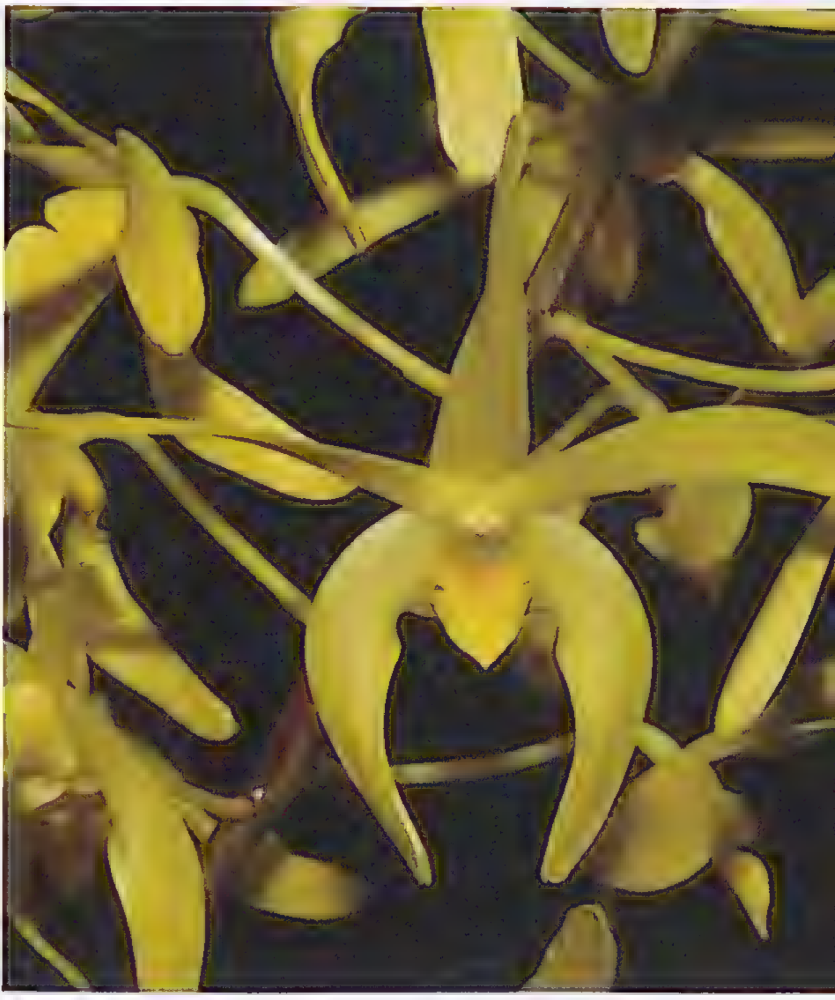
#272 *Dendrobium alexandrae* 'Imperial Treasure' HCC/ANOS 2017 (QLD)

Points	75.8
Owner	Gary Yong Gee
Date	15 April 2016
Event	
Photos by	Gary Yong Gee
Number of:	
flowers	25
inflorescences	5
Measurements(mm):	
flower across	76
vertical	65
petal	44L 11W
sepal	35L 7W
dorsal	35L 9W
labellum	48L 18W
inflorescence length	168
Detailed avge points:	
shape(25)	n/a
colour(20)	
size(15)	
substance/texture(10)	
floriferousness(15)	
habit/attractive(15)	



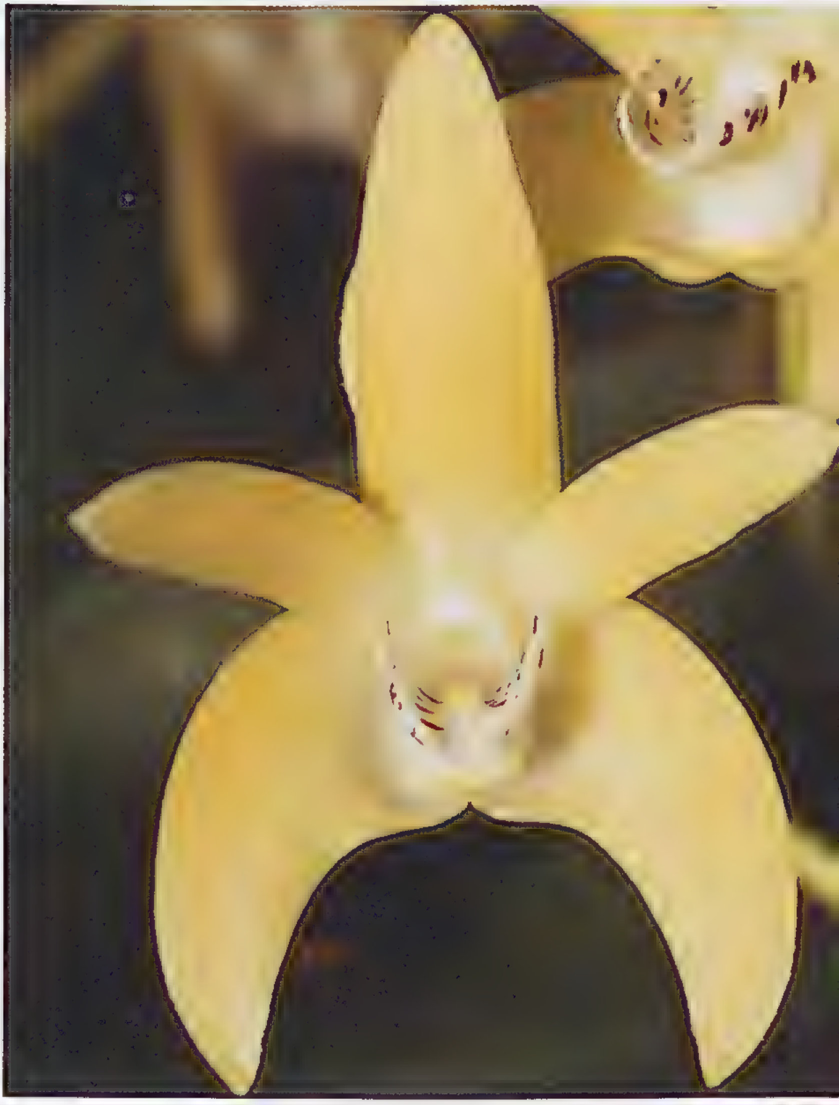
#273 *Dendrobium Native Gold* 'Deanne Robyn' HCC/ANOS 2017 (QLD)

Points	78.3
Owner	Kevin & Deanne Foster
Date	24 Aug 2017
Event	-
Photos by	Roslyn Capell
Number of: flowers inflorescences	 95 & 64 buds 8
Measurements(mm): flower across vertical petal sepal dorsal labellum inflorescence length	 62 61 31L 5W 32L 6W 30L 7W 18L 8W 340
Detailed avge points: shape(25) colour(20) size(15) substance/texture(10) floriferousness(15) habit/attractive(15)	 20.0 16.1 12.1 7.8 10.5 11.6



#274 *Dendrobium* Brimbank Gold 'Sydenham' AM/ANOS 2017 (VIC)

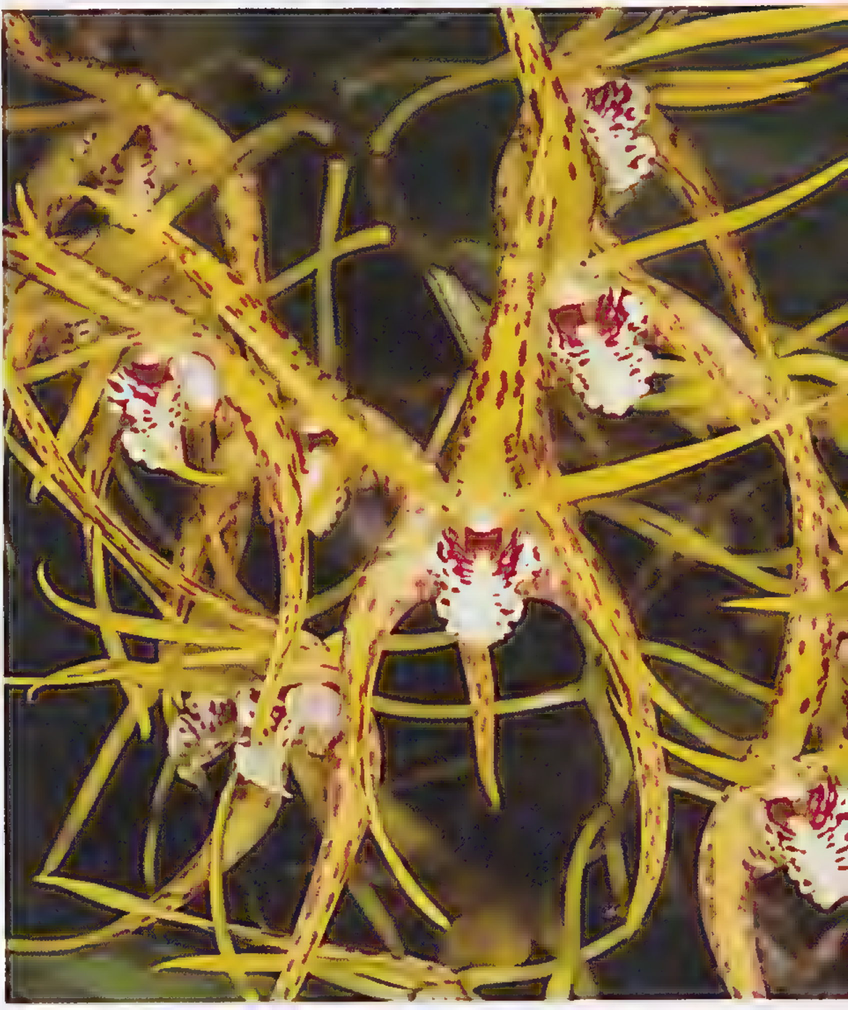
Points	80.1
Owner	Michael Drobski
Date	16 Sep 2017
Event	ANOS Melbourne Suburbs show
Photos by	David Adams
Number of: flowers inflorescences	 76 4
Measurements(mm): flower across vertical petal sepal dorsal labellum inflorescence length	 36 40 23L 6W 27L 10W 27L 10W 12L 9W 240
Detailed avge points: shape(25) colour(20) size(15) substance/texture(10) floriferousness(15) habit/attractive(15)	 20.5 16.1 12.0 8.2 11.7 12.7



#275 *Dendrobium* Hilda Poxon 'Freda' ACC/ANOS 2017 (NSW)

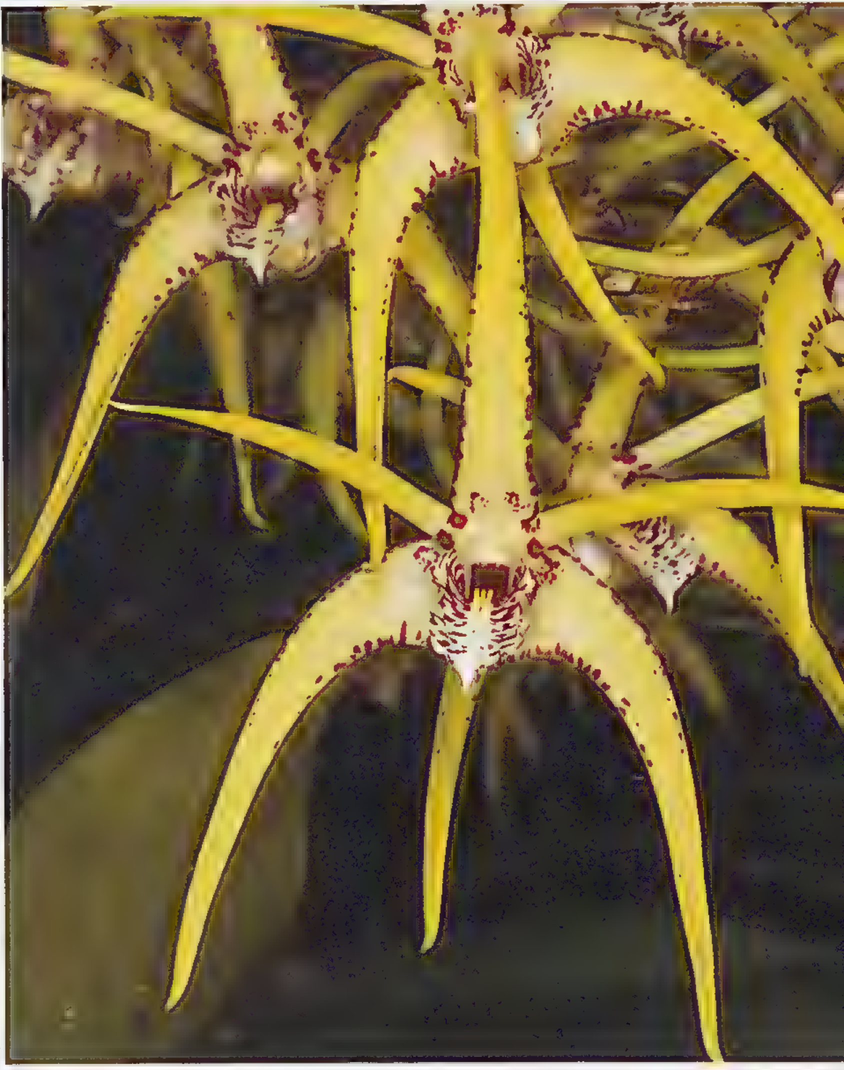
Points	84.3
Owner	Henk van den Berg
Date	9 Jul 2017
Event	Tinonee Nursery Show
Photos by	Bill Dobson
Number of: flowers inflorescences	635 & 10 buds 35
Measurements(mm): flower across vertical petal sepal dorsal labellum inflorescence length	250
Detailed avge points: shape(25) colour(20) size(15) substance/texture(10) floriferousness(15) habit/attractive(15)	n/a

See page 88 for whole of plant photo.



#276 *Dendrobium* Hilda Poxon 'Patricia' AM/ANOS 2017 (NSW)

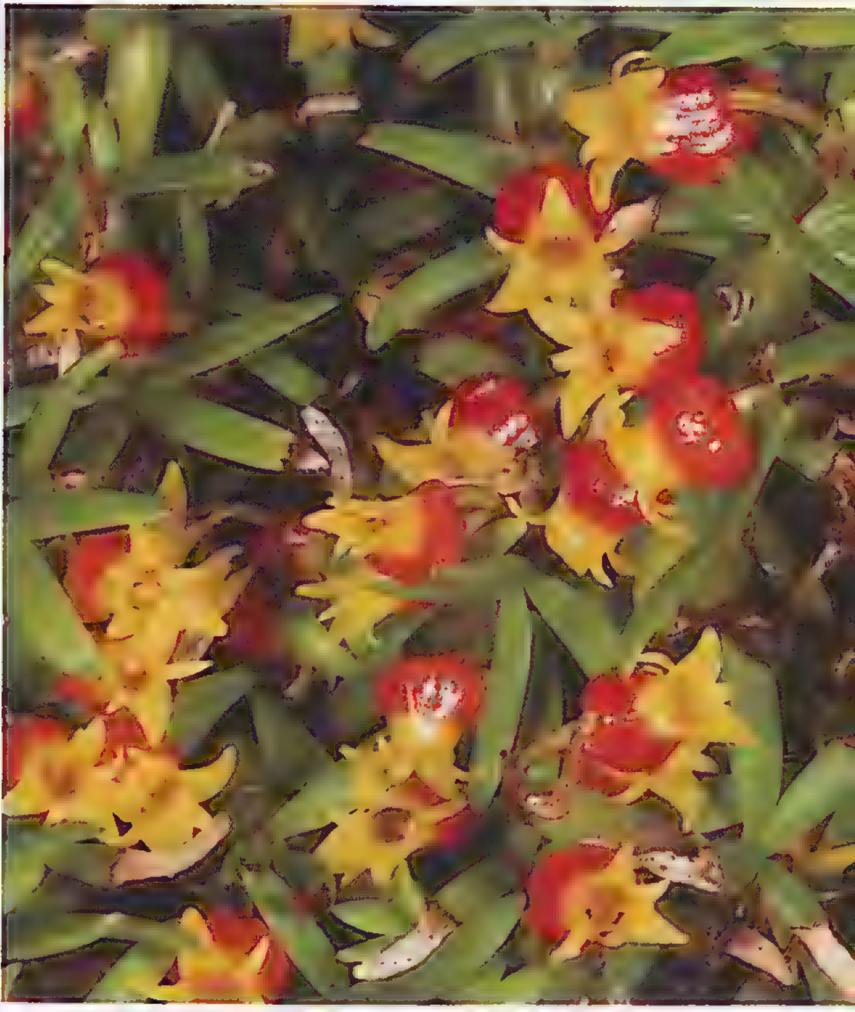
Points	82.2 (ACC 80.8)
Owner	Henk van den Berg
Date	9 Jul 2017
Event	Tinonee Nursery Show
Photo by	Bill Dobson
Number of: flowers inflorescences	226 & 30 buds 21
Measurements(mm):	
flower across	66
vertical	88
petal	42L 3W
sepal	47L 8W
dorsal	55L 7W
labellum	14L 8W
inflorescence length	258
Detailed avge points:	
shape(25)	20.2
colour(20)	16.4
size(15)	12.3
substance/texture(10)	8.1
floriferousness(15)	11.8
habit/attractive(15)	11.4



#277 - 278 *Mediocalcar decoratum* 'Emily May' AM-ACC/ANOS 2017 (NSW)

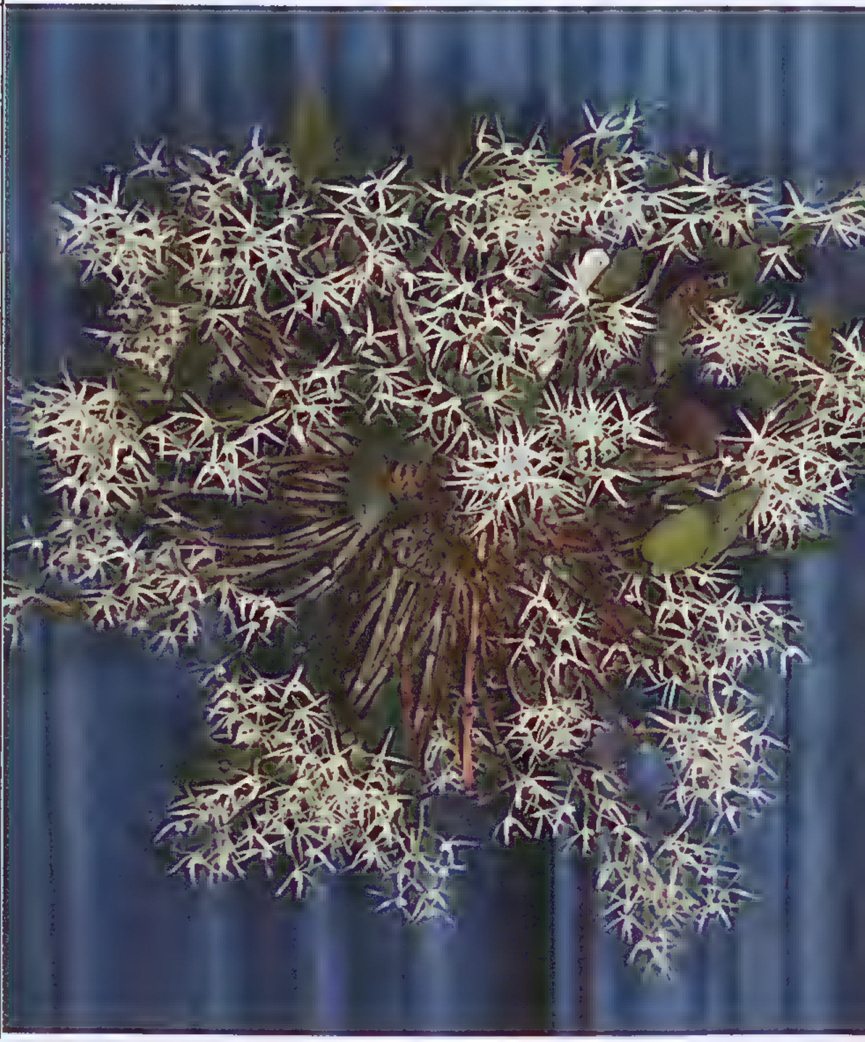
Points	83.7 (ACC 90.0)
Owner	Wal Dixon
Date	9 July 2017
Event	Tinonee Nursery Show
Photos by	Bill Dobson
Number of:	
flowers inflorescences	800 & 160 buds
Measurements(mm):	
flower across	8.5
vertical	8.5
petal	3L 1W
sepal	4L 2.5W
dorsal	4L 2.5W
labellum	
inflorescence length	
Detailed avge points:	
shape(25)	20.0
colour(20)	17.2
size(15)	11.7
substance/texture(10)	7.7
floriferousness(15)	14.0
habit/attractive(15)	13.2

See back cover for whole of plant photo.



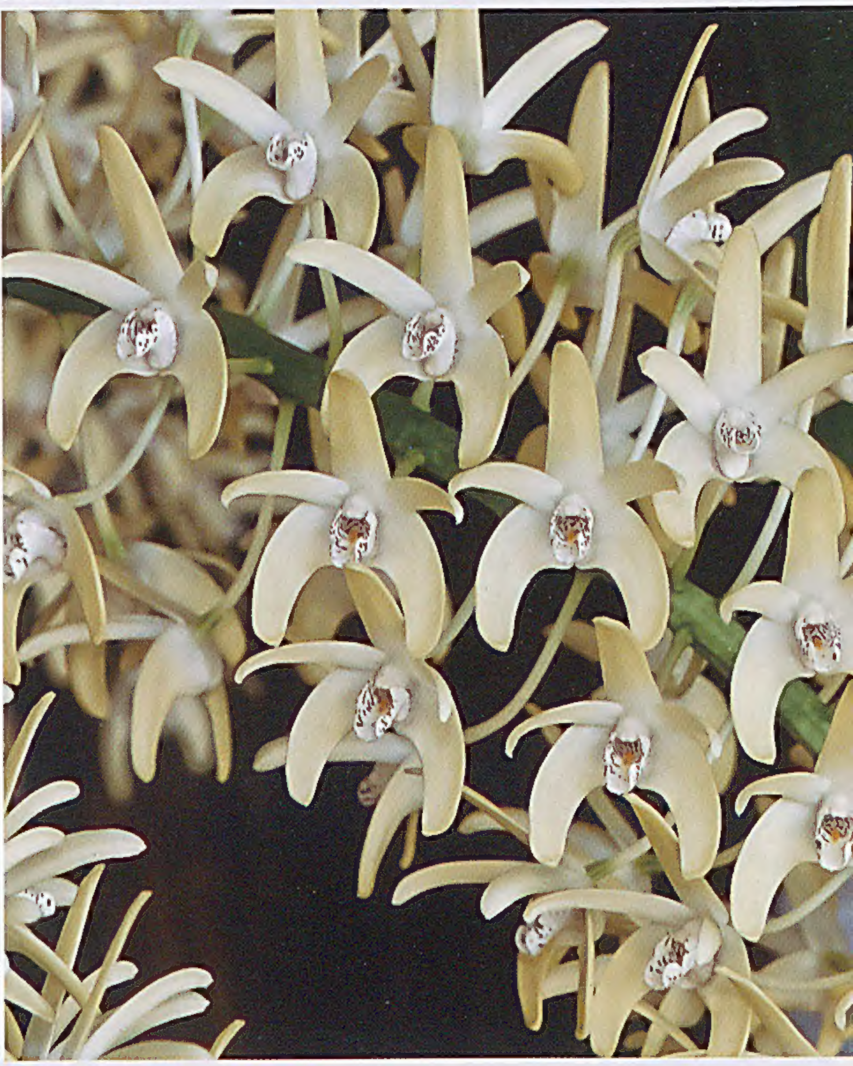
#279 *Dendrobium aemulum* 'Lyn' HCC/ANOS 2017 (NSW)

Points	79.8
Owner	DUNO & Elermore Orchids
Date	26 Aug 2017
Event	ANOS Newcastle Spring Show
Photos by	Bill Dobson
Number of:	
flowers	530
inflorescences	67
Measurements(mm):	
flower across	26
vertical	30
petal	17L 1.5W
sepal	18L 2.5W
dorsal	19L 2.5W
labellum	4.5L 4W
inflorescence length	76
Detailed avge points:	
shape(25)	20.3
colour(20)	16.3
size(15)	11.6
substance/texture(10)	7.6
floriferousness(15)	12.1
habit/attractive(15)	11.9



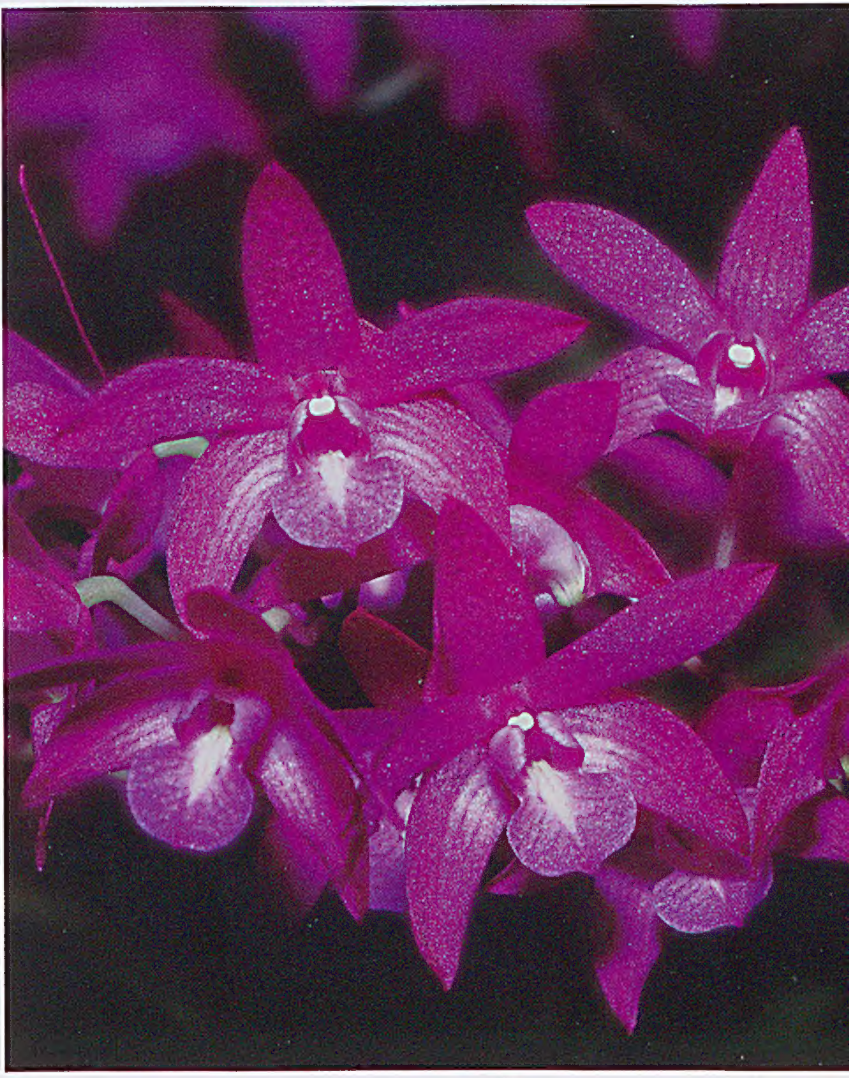
#280-281 *Dendrobium speciosum* var. *curvicaule* 'Clair de Lune' FCC-ACC/ANOS 2016 (NSW)

Points	89.4 (ACC 89.6)
Owner	Tony Blewitt
Date	2 Sep 2017
Event	special judging
Photos by	Bill Dobson
Number of:	
flowers	1,500
inflorescences	18
Measurements(mm):	
flower across	31
vertical	45
petal	23L 5W
sepal	23L 10W
dorsal	24L 9W
labellum	11L 8W
inflorescence length	660
Detailed avge points:	
shape(25)	22.7
colour(20)	18.1
size(15)	13.1
substance/texture(10)	8.7
floriferousness(15)	13.7
habit/attractive(15)	13.4

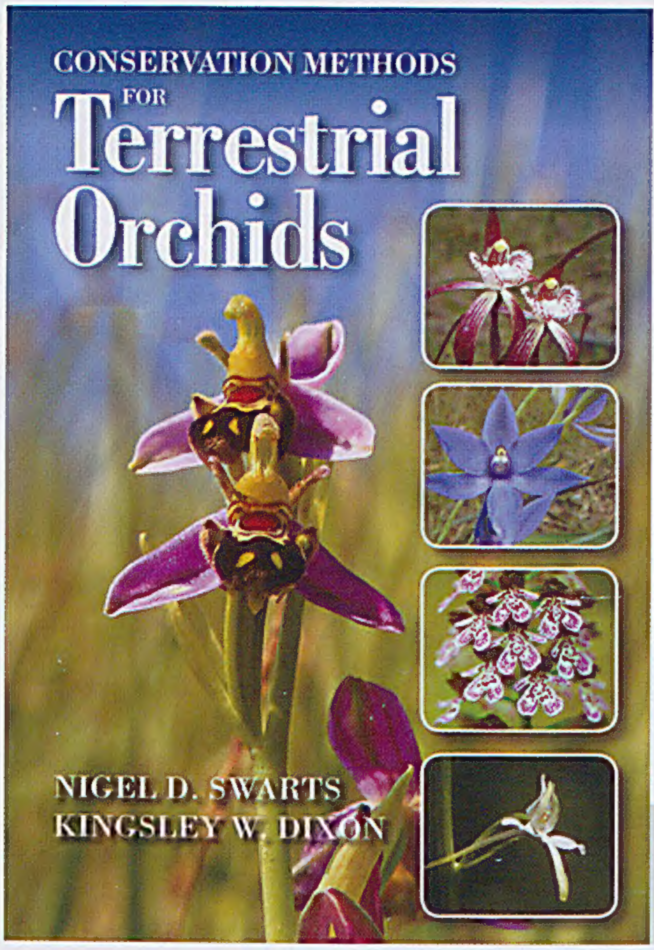


#282 *Dendrobium* Samford Rose 'Katherine AM/ANOS 2017 (NSW)

Points	80.7
Owner	Tony Blewitt
Date	2 Sep 2017
Event	special judging
Photos by	Bill Dobson
Number of:	
flowers	276
inflorescences	35
Measurements(mm):	
flower across	44
vertical	44
petal	26L 15W
sepal	26L 15W
dorsal	24L 12W
labellum	20L 20W
inflorescence length	148
Detailed avge points:	
shape(25)	20.0
colour(20)	17.5
size(15)	11.4
substance/texture(10)	6.9
floriferousness(15)	12.5
habit/attractive(15)	12.4



A completely unique handbook from the experts!



CONSERVATION METHODS FOR
Terrestrial
Orchids

NIGEL D. SWARTS
KINGSLEY W. DIXON

"This authoritative and magnificent book is the work of many years of two well-respected scientists in the field who clearly share a life-time passion for terrestrial orchids. It describes breakthrough orchid research that now make it possible to propagate even the most recalcitrant of species." —**Sir David Attenborough**, From the Foreword

KEY FEATURES

- Offers methods and techniques that will appeal to multiple end users through its detail, utilization of modern technology, simplicity, and ease of application across species from different parts of the world
- Features beautiful color illustrations and photographs outlining procedures and concepts
- Provides stand-alone guidance in each chapter and collectively enables practitioners to undertake what were previously considered complex scientific procedures
- Includes over 25 relevant case studies to illustrate key principles and success stories in orchid conservation, written by world leaders in orchid conservation practice and science
- Relates many of the techniques and procedures to epiphytic orchids to increase the appeal of the book to all orchid conservationists

J.ROSS PUBLISHING

Catalog no. JR1232
ISBN 13: 978-1-60427-123-2
2017, 240 pages, 7 x 10

RETAIL: $69.95
Special Direct Price: **$59.95**
when ordered direct from
J. Ross Publishing

TO ORDER: Visit us online at www.jrosspub.com or call us 954-727-9333 ext. 2

Orchids Australia

OFFICIAL PUBLICATION OF THE AUSTRALIAN ORCHID COUNCIL

92 Pages
Eye-catching Color

Subscription Rates
$50.00 pa (six copies)

Check out our home page on the internet
http://www.orchidsaustralia.com

Orchids Australia
P.O. Box 329, Mitcham, SA. 5062
Australia
coralie.hills@bigpond.com

(Advise Card Name,
Number and
expiry date)

Australian Orchid Foundation

Orchids of East Gippsland
- A Field Guide
Bairnsdale Field Naturalists Club Inc. 2014

East Gippsland is a diverse region spanning coastal, lowland, rainforest as well as alpine habitats. An introductory chapter includes orchid structure, pollination and habitat description. Detailed information on over 200 species includes plant descriptions, flowering times and distribution. Each species is illustrated with superb coloured photographs.

Paperback also includes a CD. 232 pages.

$40.00 plus postage

Reserve your copy today by ordering....
E-mail: publications@australianorchidfoundation.org.au
Telephone: (03) 9730 1995
P.O. Box 440, Yarra Glen Vic 3775
Website: australianorchidfoundation.org.au

Royal Botanic Gardens Victoria
RBG00013038

Directory of ANOS Groups (and Associated Societies)

NEW SOUTH WALES

- **ANOS Central Coast**; PO Box 3010, Erina NSW 2250 - Neville Lee (02)4340 5157 2nd Wednesday each month, 8pm. Narara Community Centre, 2 Pandala Rd, Narara 2250
- **ANOS Far North Coast Inc.**: 2 Treelands Cres, Ballina, NSW 2478 - Keith Skaines (02)6686 6303 3rd Saturday of month (except Dec. & Jan.), 2pm various venues, contact the secretary.
- **ANOS Illawarra**: 2 Wilford St, Corrimal NSW 2518 - Bruce Porter (02)4284 8308 2nd Tuesday each month, 7pm. Old Court House, Wollongong.
- **ANOS Macarthur and District**: 8A Boundary Rd., Parramatta NSW 2150 - Wally Southwell (02) 4681 8589 3rd Thursday each month, 8pm. Birriwa Community Hall, Fitzpatrick Rd, Mt Annan.
- **ANOS Mid-North Coast**: 69 The Lakes Way, Forster NSW 2428 - John Zietsch (02)6554 9733 3rd Sunday each month, 12 noon, followed by BBQ. Contact for location - Taree or Wauchope
- **ANOS Newcastle Inc.**: PO Box 4021, Rathmines NSW 2283 - Peter Denning (02)4975 3729 4th Thursday of month, 7.30pm. Elermore Vale Community Centre, Croudace St, Elermore Vale.
- **ANOS Sydney Inc.**: 9 Alicia St, Glenwood NSW 2768 - Andrew Locke (02)8824 6338 3rd Friday each month, 8pm. Senior Citizens Hall, B.H. Community Centre, Conie Ave, Baulkham Hills.
- **ANOS Warringah Inc.**: PO Box 421, Forestville NSW 2087 - Bill Dobson (02)9981 2525 3rd Tuesday each month, 8pm. Community Hall, Starkey St, Forestville.

QUEENSLAND

- **ANOS Beenleigh Inc.**: PO Box 1130, Beenleigh QLD 4207 - David Cleal (07)3805 6865 1st Thursday each month, 7.30pm. Showground Hall, James St, Beenleigh
- **ANOS Kabi Inc.**: PO Box 424, Aspley QLD 4034 - David James (07) 3359 5752 2nd Tuesday of month except Jan., 7.30pm. Isabella Griffin Room, Strathpine Community Centre, 199 Gympie Road, Strathpine.
- **ANOS Mackay and District**: 24 Barton St, Mackay, QLD - Arthur Pinkney (07)4952 2186 2nd Thursday each month, Andergrove Community Centre, Celeber Drive, Andergrove.
- **ANOS Townsville Inc.**: 92 Curie St, Wulguru QLD 4811 - John Nuss (07)4778 4311 1st Tuesday monthly (excl. Jan.) 8pm Townsville O.S. Hall, Joe Kirwan Pk, cnr Bamford Lane & Charles St, Townsville
- **Native Orchid Society of Toowoomba Inc**. 106 Umbiram Rd, Wyreema QLD 4352 - Josie Wright (07)4696 2150 1st Friday of month, 7.30pm Lutheran Church Hall, cnr West and Alderley St, Toowoomba

SOUTH AUSTRALIA

- **Native Orchid Society of South Australia Inc.**: PO Box 565 Unley SA 5061 - Les Nesbitt (08) 8261 1550 4th Tuesday each month, 8pm. St Matthew's Hall, 67 Bridge St, Kensington.

VICTORIA

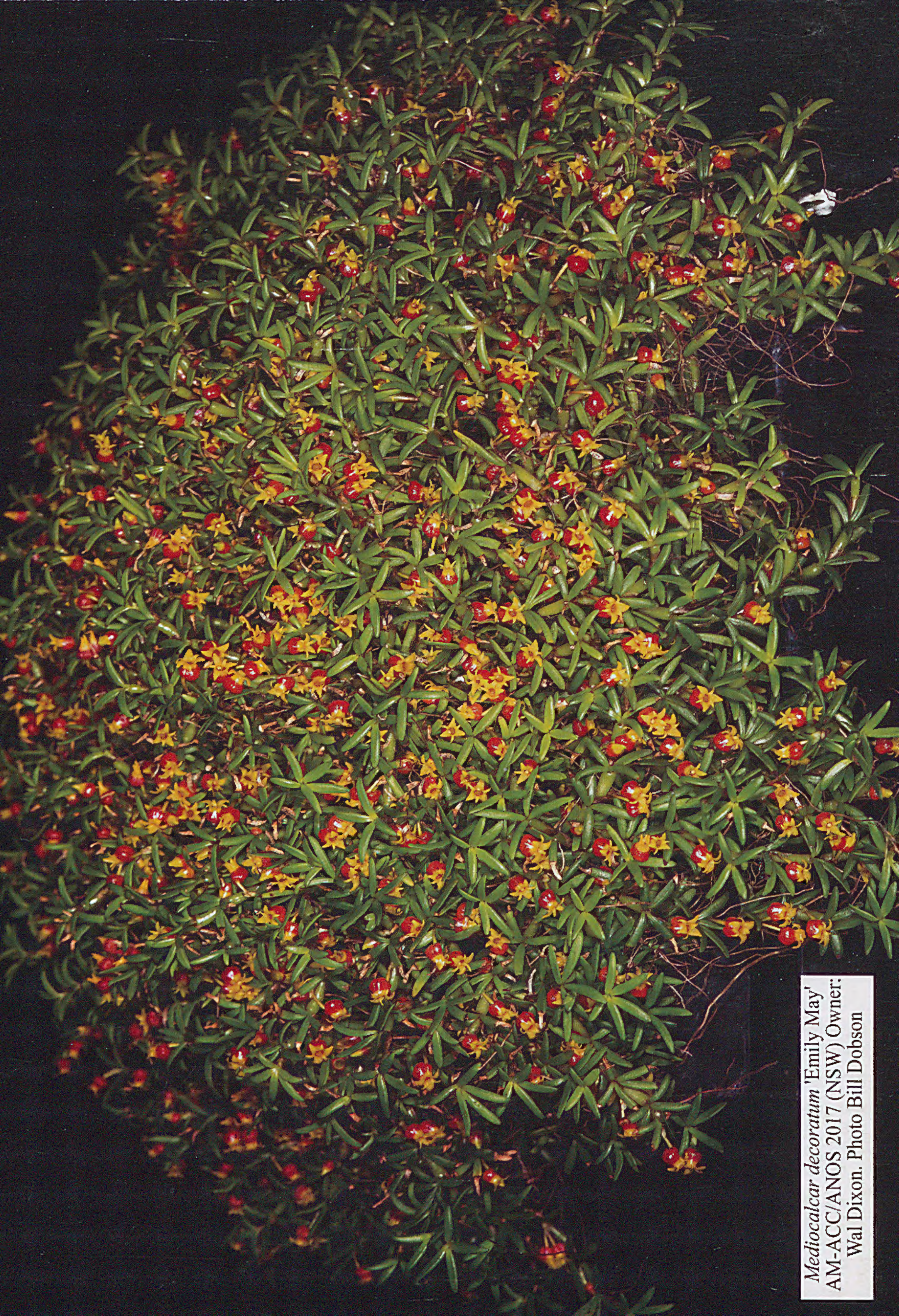
- **ANOS Geelong Inc.**: 609 South Street, Ballarat VIC 3350 - Anita Hinton (03) 9743 6040 2nd Wednesday each month, 7.30pm. Uniting Church Hall, Yarra St, Geelong.
- **ANOS Melbourne Suburbs Inc.**: PO Box 169, Bayswater VIC 3153 - Phil Ritchie (03) 9525 9606 4th Wednesday of month (excl. Dec. & Jan.), 7.30pm. Montrose Primary School, Leith Rd, Montrose 3765
- **ANOS Victoria Inc.**: PO Box 308, Boronia VIC 3155 - (03)9387 2771 1st Friday each month, 8pm. Toorak Uniting Church Hall, , 603 Toorak Rd, Toorak.

WESTERN AUSTRALIA

- **ANOS Western Australia Inc.**: Mrs Lyn Morgan, 99 Bywater Way, Wilson WA 6107 - (08)9451 2164 2nd Monday each month, 8pm. Wilson Community Hall, Braibrise Rd, Wilson.

NEW ZEALAND

- **ANOS New Zealand Native Orchid Group** 42 Titiro Moanna Rd, Korokoro, Lower Hutt 5012



Mediocalcar decoratum 'Emily May'
AM-ACC/ANOS 2017 (NSW) Owner:
Wal Dixon. Photo Bill Dobson